employment service review

THE UNIVERSITY OF MICHIGAN
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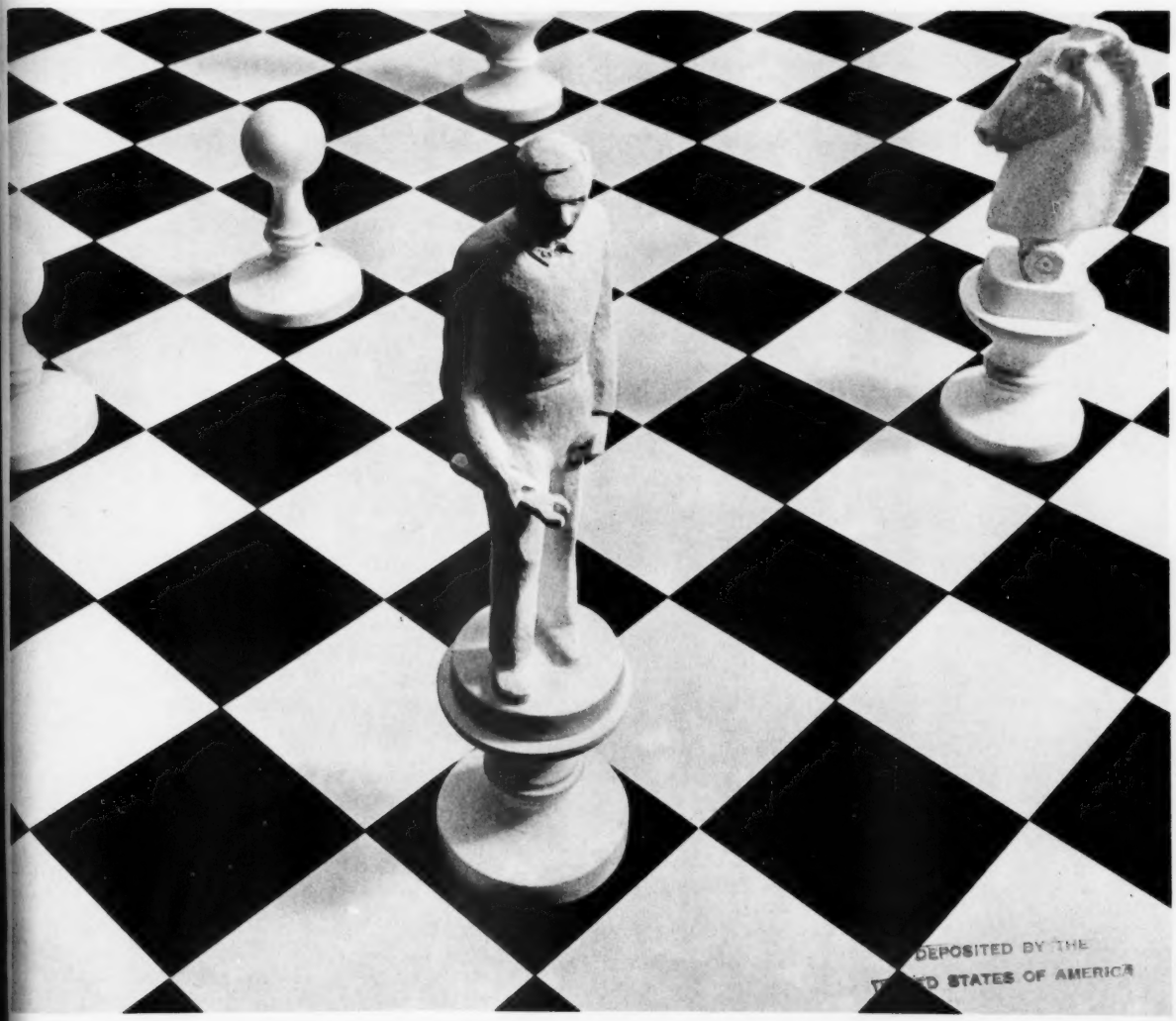
PERIODICAL READING ROOM

In This Issue:

R. Buckminster Fuller
Stanley Foster Reed
Eli Ginzberg
Frank Reissman
Frank Cassell



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March-April 1967

COVER: "The New Manpower"

A new man is on the board, and he is taking his place among the more traditional forces in the economy. His strength is in his potential, his future is in the hands of those who dare to think ahead.

Photo courtesy of Virginia Electric and Power Company.

U.S. DEPARTMENT OF LABOR

Manpower Administration
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Bureau of Employment Security,
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U.S Employment Service
Frank H. Cassell, Director

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Ronald Van Doren, Editor

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The New Manpower

FRANK H. CASSELL
DIRECTOR
U.S. EMPLOYMENT SERVICE

R. Buckminster Fuller, noted architect and one of the great creative minds of our time, frequently scolds scientists and engineers for remaining slaves to old mythologies. For example, he accuses them of thinking in terms of the sun "setting," of shooting missiles "up" into space and of winds being "blow from the West" whereas, of course, the sun is stationary in relation to the earth, missiles go "out" into space, and winds are the result of air moving "into" a low pressure center. To Mr. Fuller, the creative process begins when we put away the myths, return to the fundamentals, and reexamine our problems and situation in terms of the *real* facts.

While I won't presume to be another Buckminster Fuller, I believe there is a definite need for applying this kind of creative thinking to the manpower field. Just as there is a vast reservoir of wealth in the universe still to be discovered and used, there is a wealth of human resources right under our noses—if only we put aside the myths and apply our creative energy to using it.

—Is the requirement that a certain job be done by an engineer or technician a matter of fact or a company tradition?

—Is a high school diploma really required to handle that sales job, or do we recognize that one can be a competent and motivated human being without a diploma?

—Do all the jobs now being done by a registered nurse really require a registered nurse?

—Are we searching in vain for a broad generalist to do the job of a narrow specialist?

—As employers and members of the Federal-State Employment Service, are we utilizing fully the manpower and assistance available under the new employment and training programs?

The New Careers Movement, as Prof. Frank Reissman of New York University likes to call it, is now centered around the nonprofessional public service employee. He estimates that there are some 50,000 such previously inexperienced and untrained people doing jobs normally alloted to highly trained professionals and technicians. The key to success is in breaking down the job, building in training, and then making the job the motivator for further development of the worker.

Technological changes and advances have forced a similar New Careers Movement in business and industry, but much remains to be done. The trouble is, we have been thinking in terms of adjusting the manpower to the needs of technology, rather than the other way around. Meanwhile, manpower, rather than technology, is becoming the increasingly important factor in operating costs, not to mention the sociological factors that also reflect on economic well-being in general. Isn't it time we started to think more in terms of fitting jobs into people, instead of people into jobs?

Working together, the Federal-State Employment Service and the creative employer have an unusual opportunity to move into the new industrial revolution of full employment, full and efficient utilization of available human resources—and full production.

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The Human Service Worker: A New Careers Movement

FRANK RIESSMAN

While the Guaranteed Annual Income and Black Power have received considerable publicity in the last year, a much quieter movement has been slowly gathering momentum. In fact, it may not yet be a movement in the full sense of the word. But increasing attention is being given to a new kind of public service employee in our society. This is the human service worker, functioning as a teacher aide, family planning worker, housing aide, counselor aide, research aide, mental health aide, etc. This new worker, supported largely by public funds, has been called everything from an auxiliary to a nonprofessional to a subprofessional, to a paraprofessional.

Americans for Democratic Action, at its 1966 convention, proposed that 5 million of these jobs be created in public services. Included in their list were police aides, recreation aides, homemakers, welfare aides, code enforcement inspectors. Congress has enacted the Scheuer-Nelson Subprofessional Career Act which will appropriate approximately $70 million to employ and train untrained, unemployed people in these needed jobs.

Already in the United States there are probably close to 50,000 of these new nonprofessionals, most of the jobs having been created by the antipoverty legislation. Most estimates indicate that 25,000 such full-time human service positions were produced for "indigenous" nonprofessionals by the Office of Economic Opportunity. Probably another 25,000 or more part-time preschool aides have been employed through Operation Headstart, and presently through title I of the Elementary and Secondary Education Act some 40,000 teacher aides will be em-

Frank Riessman is an authority on nonprofessional employment and is Professor of Educational Sociology, New York University.

Photo by Paul Conklin

ployed. Medicare will involve many thousands more as home health aides.

The studies find that this new manpower has worked quite effectively in reaching the poor and helping the poor to utilize services. The nonprofessionals have been strikingly effective, for example, in persuading people to obtain birth control information and to utilize the new birth control clinics. In fact, the reports indicate that these neighborhood residents are perhaps the most effective agents in bringing the new birth control techniques to the low income population.

A research investigation in nine cities conducted by Daniel Yankalovich, Inc., indicates that these new workers evidence high morale and considerable involvement in their work, and have been well accepted by professionals. Most of the difficulties anticipated, for example, problems of confidentiality, authority, overidentification with the agency and so on, have not been significant, according to this investigation. An ancillary, though especially interesting finding, is that the hard-core poor who, incidentally, were hired in only small numbers have nevertheless done as good a job as the more "creamed" nonprofessional recruit.

It is interesting to observe the effect of the new trend on the older type nonprofessionals who have long worked in settlement houses, hospitals, child care, etc. In New York City, for example, District Council 37 of the American Federation of State, County, and Municipal Employees of the AFL–CIO (which incidentally has in its union 20,000 hospital workers, and 7,000 school lunch aides) is now developing a plan whereby nurse aides can become licensed practical nurses, *with the required education and upgrading taking place on the job itself.*

This model is related to the New Careers concept which suggests that

Sketch by Patricia Allott

jobs normally allotted to highly trained professionals or technicians can, if they are broken down properly, be performed by inexperienced, untrained people. These initial jobs form the entry position. The notion is *jobs first, training built in;* that is, the job becomes the motivator for further development on the part of the nonprofessional.

This New Careers concept requires that jobs be redefined and that the job structure be reorganized to permit new hierarchical steps from the entry position up to the fully professionalized position. This requires a reorganization of the table of organization and a redefinition of jobs both for the nonprofessional and the professional (with the latter being released from many nonprofessional functions such as helping children on with their shoes, taking attendance, etc.)

The idea is to provide people with employment first and diplomas later and to introduce training while the workers are on the job with concomitant college courses provided largely at the job base. This concept is directly opposite to one of the most popular ideas in America, namely that one has to obtain long years of education before he can perform a meaningful job. The New Careers concept stresses instead that the job be provided initially and that training, upgrading, and added education be built in. It is possible to begin, for example, as a teacher's aide and while obtaining courses on the job, in the evening, and during the summer, to rise within a short period of time to become an assistant teacher, then an emergency teacher (or associate teacher), and ultimately a fully licensed professional teacher. In a plan being developed in the Newark School System, it is proposed that individuals with less than a high school education go through these steps while working full time, obtaining an entry salary of approximately $4,000 per year and becoming full fledged teachers in 5 to 6 years. Fairleigh Dickinson University in New Jersey has accepted this plan and has patterned courses so that the aides can enter new careers while working full time. They will introduce these courses in the field (at the job) as well as at the University.

However, although it is clear that increasing numbers of nonprofessionals are being effectively employed in human services in the United States, a variety of problems is now coming to the fore. *While jobs have been created, careers have not.* Very little training and upgrading has been instituted and the tables of organization of the agencies have not been reorganized to develop hierarchical lines for the nonprofessional to move upward. Although civil service requirements have been waived for the entry position in some cities and States, new career lines for nonprofessionals have not been instituted in the civil service system. Thus far, also, the security of nonprofessionals has not been clearly established, nor have the new nonprofessionals been integrated in any of the major associations of organizations, such as the National Education Association.

It is noteworthy, however that there are at present a number of New Career programs in the process of being developed, in cities around the country—in Seattle, New Haven, San Francisco, Sacramento, Washington, D.C., Eugene (Oreg.), and a few community colleges are introducing field steps to become professionals. Some large universities too, like New York University's "Second Chance University" are developing programs for nonprofessionals to enable them to acquire rapidly these new careers. Similarly, Yeshiva University is developing a health career program with attached college credit. The Citizens Crusade Against Poverty is planning to hold a series of regional conferences and a national conference moving toward some type of association or organization for nonprofessionals or new concepts and the National Association of Social Workers is also studying ways in which to integrate the new manpower organizationally. Training centers are beginning to open for the training and upgrading of nonprofessionals.

At the present time there is a great need to assist the development of these various projects. They are, in fact, requesting assistance. There would seem to be a need, therefore, for a basic center to integrate the emerging knowledge and provide technical assistance and consultation in a variety of areas.

Employment Service—Chosen Instrument of the Manpower Revolution

ELI GINZBERG

Not so many years ago many sophisticated observers argued that in any reform of job market operations the wisest course would be to ignore the Employment Service since it was not in a position to carry out effectively the functions it had, much less any new functions. Yet, today, the Employment Service is regarded as the chosen instrument of the manpower revolution. What lies behind this shift from disdain to critical importance, from reluctance to add even small functions to a situation where every new manpower program becomes the responsibility of the Employment Service?

Shortly after James P. Mitchell became Secretary of Labor, only slightly more than a decade ago, he appointed an ad hoc consultants group under the informal chairmanship of Dean Douglas Brown, to assist him in rethinking the mission of the Department and its organization. This group concluded that the Department must change its image and become *the* Manpower agency of the Federal Government. Few understood what we were proposing and few of them were enthusiastic. After all, this was at a time when, after testifying on the Hill, a senior official of the Labor Department was told by the chairman of a congressional committee to give his regards to "your boss, Mr. Meany."

It was 5 years from the time the consultants recommended raising manpower as the Department's new flag until the first rumblings of the manpower revolution were heard throughout the land. And only another 5 years have passed since then—a very short period even in a country with a short history.

In order to appreciate the radical shift in prevailing attitudes toward the Employment Service, some recent manifestations of the continuing manpower revolution will be presented briefly, together with a consideration of the exaggerated expectations that many hold for the Service. This will be followed by more realistic recommendations concerning the direction of desirable changes.

Some items from recent press reports and certain findings from current manpower research will help to set out many dimensions of the accelerating manpower revolution through which we are now living.

The Census has just reported that between 1960 and 1965 another 2 million Negroes migrated out of the South, most moving to the North but many to the West. The horrendously difficult problems of the ghetto unemployed are but one reflection of this trend.

A group of consultants charged with appraising the effectiveness of the Federal effort to improve the education of hard-to-teach children has concluded that the country has gotten very little for its money. Most of the difficulties remain unresolved.

Despite anguished pleas from farm employers, the Bracero program was substantially halted in a single year with very small losses to the farmers and substantial gains to American farm laborers.

Two decades after the passage of the Employment Act, Congress finally passed two direct employment bills—Kennedy-Javits and Nelson-Scheuer.

Despite 5 years of markedly improved economic and employment conditions, the unemployment and underemployment rates for Negroes remain distressingly high.

Recent research has revealed that only 3 percent of all career officers and enlisted men availed themselves of counseling prior to being separated from the armed services, although the overwhelming majority were facing the necessity of finding civilian jobs.

Dr. Eli Ginzberg is Professor of Economics and Director, Conservation of Human Resources, Columbia University, and Chairman, National Manpower Advisory Committee.

Another study of how the unemployed look for and find jobs revealed that they relied primarily on personal contacts and only secondarily on employment agencies, private or public.

Spokesmen for various low income and minority groups are becoming increasingly concerned that while training is valuable, and job creation may be even more valuable, the problems of their constituencies will not be resolved until their income needs are met. There is little or no prospect for many of the low skilled to earn enough to bring their family incomes above the poverty line.

Finally, the public, Congress, and the Administration have become aware that the variegated manpower and manpower related programs initiated since 1961 represent a crazy quilt with duplication, overlapping, and resultant loss of effectiveness. Coordination has become the watchword of the day.

The foregoing are simply indicative of the scope and scale of the manpower revolution. They should help, however, to make clear why the Employment Service has been living through a tumultuous period and why the years ahead are also likely to be tumultuous.

Without undue elaboration, it seems worthwhile to set out below why some of the major expectations that many have come to hold about what the Employment Service should do appear to be exaggerated, if not unrealizable.

1. The Employment Service cannot get a job for every person who is seeking one. Many individuals are not directly employable. In other instances, the demand for labor is too weak.

2. It may not even be possible for the Employment Service to provide a meaningful service for every person who seeks its help. If a job cannot be provided, there may be nothing else that the client wants or can use.

3. The Employment Service will not always be able to meet all employers' demands, even for unskilled labor. The effective supply frequently is inadequate.

4. It is not the province of the Employment Service to be the sole provider of service to potential employees and potential employers. In some communities, employer opposition to the Service runs very deep and has been of long standing.

5. While it is easy to applaud the recommendations of the critics that the Employment Service should keep fewer records, it is difficult to see, especially where unemployment compensation moneys are involved, how a governmental agency can operate without a reasonable amount of recording and reporting.

6. Much stress has been placed upon the desirability of attracting and retaining a higher average level of personnel in the Employment Service. But the same general statement is made about every other large-scale governmental and nongovernmental organization from the Armed Forces to General Electric. The value of such a hortatory formulation is unclear, especially in the absence of an established relationship between a staff member's education and personality and his performance.

7. The argument is advanced that the Employment Service should spend more time appraising those who seek its help. Admittedly it does not know as much as it should about the clients whom its serves. However, this advice cannot be followed in the absence of corresponding adjustments of staff and budget and of calculations as to how optimum results can be obtained.

8. The Employment Service has been criticized for placing people, especially young people, in low-level jobs. But what employment alternative is there for an unskilled man or woman, especially one not interested in undergoing training?

9. Finally, the point has been made that the Employment Service has not been doing all that it can and should do to implement the new manpower programs which have been legislated in recent years. Query—how can it possibly do this and also carry on all of its earlier responsibilities with, at best, only very modest adjustments in staff and budget?

In short, the Employment Service has been advised to do too much with too little. Its critics have frequently had no real understanding of the complexities involved in providing effective services to the hard-to-employ. And they have further underestimated the lack of public acceptance, if not outright hostility, that the Employment Service still faces in many communities.

But to argue as has been argued above that unrealistic expectations have developed about the Employment Service does not imply that it cannot change at all and, by changing, do a more effective job. Some directions for constructive change are noted below.

1. In focusing more of its attention on the hard-to-train and hard-to-employ, it must learn to operate not solely on its own but in cooperation with a host of community organizations—governmental, nonprofit, and private. In short, the Employment Service must see itself and operate as a specialized community agency.

2. It must devote a substantial amount of its resources to developing job openings with different types

of employers. If the Service becomes to client oriented, that it, too oriented toward the jobseeker, it will fail him unless it has developed effective relations with those who alone can provide him with a job.

3. In its efforts at job creation, it should recognize the desirability of stimulating community-wide efforts in which local leadership acts to spur business to provide jobs for the hard-to-employ. The Employment Service cannot hope to carry the ball alone. It must learn to work cooperatively with and through the leadership structure.

4. The same observation holds with respect to MDTA and other training efforts. The Employment Service should not seek to operate the MDTA program, together with Vocational Education, as an intragovernmental effort. What it should do is to involve as many employers and trade unions as it can in the development of on-the-job and other types of training and of eventual employment opportunities.

5. One of the least exploited of all potential assistance is that of members of the academic community who could help Employment Service operations, especially in large centers, to improve the collection and analysis of data and to interpret it to the community. The academicians could profit from constructive relations with the Employment Service which, in turn, needs the kind of help that interested professors can provide.

Specifically, a closer liaison with the academic community would make it much easier for the Employment Service to develop and carry through followup studies of what happens to various groups of clients. This is something it has an urgent need to know; this is something that the professors are also interested in finding out.

6. The Employment Service needs to review critically the changes in its areas of operation and to pick up, as early as possible, important changes in supply or demand. For instance, it must be alert to the inflow of large numbers of migrants who may have special characteristics and needs. This, too, is an area where academicians and other experts in the community can be of assistance.

7. There is need for the Employment Service to improve its relations with news media. It has much general and specific information of interest to the press. If this were readily released for publication, it is likely that the press would cooperate by creating a better local image of the Employment Service. The press could also alert the Employment Service to changes in the community of which it might not have become aware.

8. As the Employment Service focuses increasingly on the hard-to-employ, it faces the responsibility of adapting its present instruments and procedures to the needs of the new clientele. Despite general agreement that the GENERAL APTITUDE TEST BATTERY requires such adaptation, relatively few changes have been made. While some progress has been made in in-service training of staff, a greater involvement of community leaders, academicians, and the press—as recommended above—could go a long way to provide additional resources that could be used to this end.

Clearly, there is much that the Employment Service can do—much that it should do—to change itself so that it is in a better position to discharge its old as well as its new functions.

It should be emphasized that the manpower revolution is still in its early stages. We are still experimenting with many facets of an active job market policy. But, it is clear that, despite some early neglect, the Employment Service has become and will remain the chosen instrument of the manpower revolution. If the Employment Service did not exist, it would be necessary to create an organization with a great network of field offices to perform the services which it is now charged with performing.

But if the Employment Service is to do its job more effectively, it must move in two directions: It must become a community agency, much more closely alined with other community agencies; and it must remain sensitive to national, regional, and State relations.

As its responsibilities shift from an exclusive concern with employment to a broadened concern with employability, it must learn many new ways of thinking and doing. Otherwise, it will fail to discharge its new responsibilities effectively.

Since so many of its new clientele are Negroes or members of other minority groups; since the Employment Service is a Federal-State system; and since the commitment of the Federal Government to the elimination of discrimination is unequivocal, the Employment Service must find ways to surmount local pressures which continue to violate the rights of minorities. Failure to do so means that it will be untrue to its trust and no organization can be efficient if it loses integrity.

The Employment Service has changed, but it has need to change further. The only question that it faces is whether it will take the lead and change itself or whether it will wait and be pushed into changes by others. The answer to this crucial question is the challenge that the leadership of the Employment Service faces.

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A Positive Policy

HENRY W. ABTS

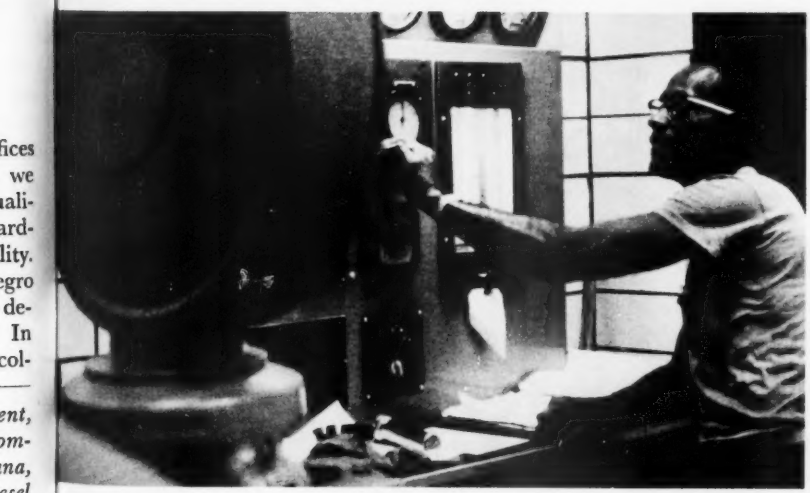
The EMPLOYMENT SERVICE REVIEW *plans to publish articles by or about employers who have a positive equal employment policy and who have developed techniques for integrating their work force. This article is the first in this series.*

In 1965, Cummins became the first business corporation to hold recruiting interviews on the Tougaloo campus. We had made a substantial financial contribution to the institution for the long-range planning necessary to upgrade the facilities, the faculty, and the curriculum. The Vice President of Personnel became a member of the Board of Trustees and a member of his staff joined the Planning Committee.

Almost immediately after these activities were made public, our Jackson, Miss., distributor informed us of a cancellation of an order for 35 engines from a local customer. He feared a general boycott of Cummins engines. The response of our Board Chairman, J. Irwin Miller, was: "Cummins has worked to improve the atmosphere of human relations throughout the country for many years . . . and the aid to Tougaloo is a part of this commitment . . . we are firmly convinced that such efforts help the Company in the long run."

To attract Negroes from outside the company, we made a special effort to alert college placement offices and employment agencies that we wanted to have a look at all qualified candidates available, regardless of race, religion, or nationality. We also informed various Negro leaders and organizations of our desire to hire qualified Negroes. In 1963, we were able to recruit a col-

Henry W. Abts is Vice President, Personnel, Cummins Engine Company, Inc., of Columbus, Indiana, manufacturers of high speed diesel engines.



lege graduate for our Public Relations staff, the first such direct Negro recruit at this level.

During the 1964–65 school year, we held interviews on the campuses of three predominantly Negro colleges in the South. As a result, in June of 1965 we added three more young Negroes to our management training program, one of whom was placed in our foundry operation in South Bend.

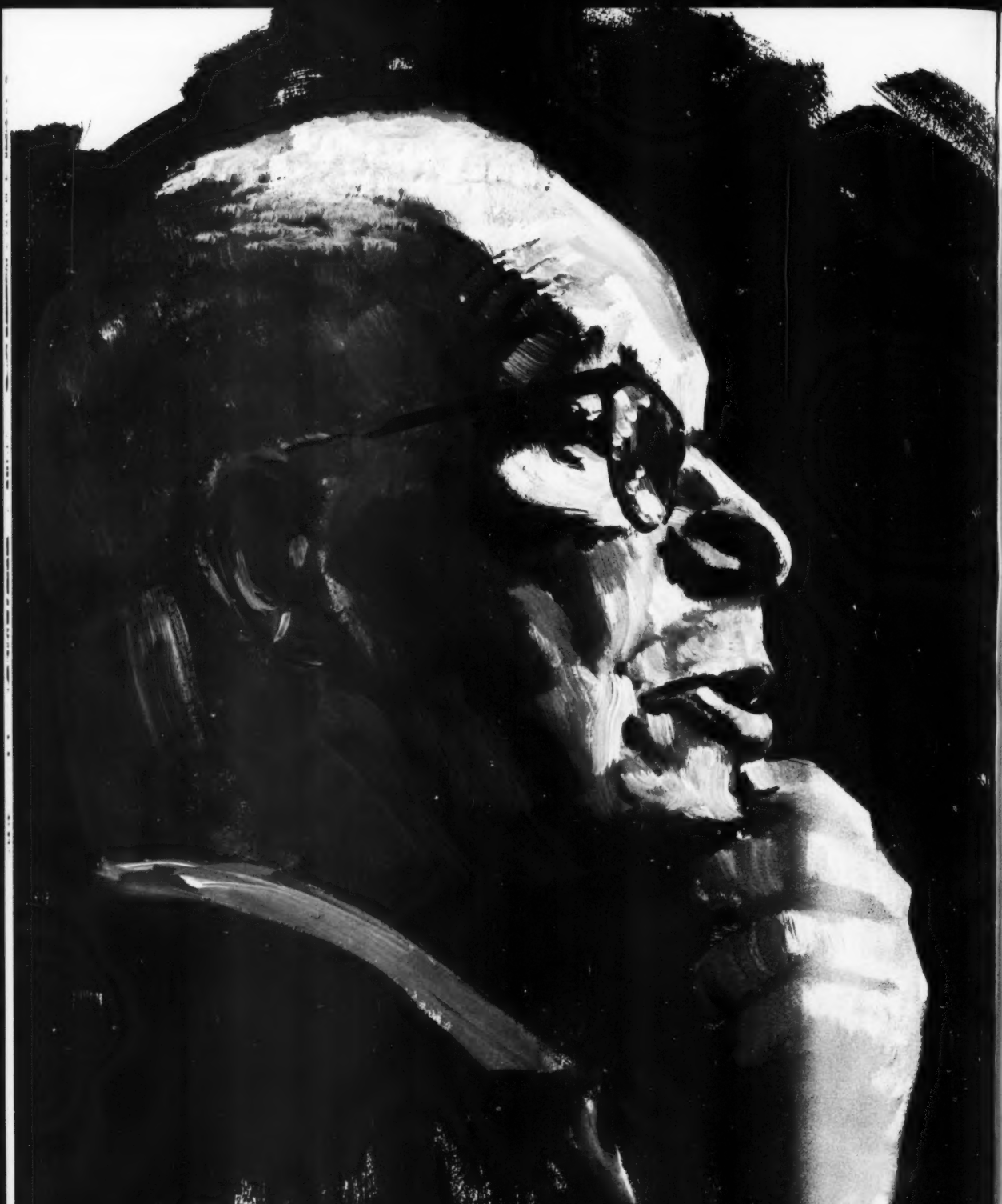
Hiring Negroes for management positions has created some difficulties for us in Columbus. In 1963, when we hired our first Negro management trainee, there was only one sizable apartment development in town. Since we referred many of our newly hired personnel to this development, we decided to treat our new man just as if he were any other newly hired Cummins employee.

When he went to the development office to sign his lease and pick up the apartment keys, it was apparent that his color was something of a surprise. He was treated cordially, but told that the person who had to sign the lease was "not in the office."

The Vice President of Personnel and a member of his staff went immediately to the development office to talk with the manager, who informed them that he and his associates were disappointed that Cummins had not said that the prospective tenant was a Negro. He insisted his opposition was based solely on economic grounds, because he was likely to lose many tenants if he rented to a Negro. We replied that we were most interested in this man's receiving an apartment and that if he were admitted, we would continue to refer our employees to his development. He reluctantly agreed and signed the lease. As it turned out, there were no problems of any kind.

Our interest in Equal Employment Opportunity is complete. As a result of our experiences we have drawn the following conclusions:

(*Continued on page 48*)



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Creativity, Innovation, and the Condition of Man

A dialogue between
R. BUCKMINSTER FULLER
and STANLEY FOSTER REED

The following are portions of dialogues recorded in 1965 and 1966 and scheduled to be printed in book form in the near future. Of Dr. Fuller, a recent profile in THE NEW YORKER said: "An association with the origins of circumnavigating the globe would be an ideal background for his current activities as an engineer, inventor, mathematician, architect, cartographer, philosopher, poet, cosmogonist, and comprehensive designer whose ideas, once considered wildly visionary, are now influential in so many countries that he averages a complete circuit of the globe each year in fulfillment of various lecture and teaching commitments." Mr. Reed is a lecturer, writer, inventor-philosopher, and president of such enterprises as the Technology Audit Corporation and the Reed Research Institute for Creative Studies. He is the publisher and editor of MERGERS & ACQUISITIONS, a quarterly journal of corporate venture.

REED

Buck, can we start right out on the innovative process in relation to industry?

There are two reasons why the innovative process should be of importance to both of us. First, each of us has a number of patents and each of us has received substantial sums for their use. In the process of explaining (really selling) a new technical idea, I found I usually got encouragement from the Chairman, the President, the Executive Vice President, and the other members of the corporate hierachy (especially the Vice President for Sales), but I always ran into a stone wall when I came to the Director of Research, the Chief Engineer, or anyone in the top technical echelon. He was often wildly irrational in attitude and obstructionist in his manner. It seems that when faced with mild *change, the reaction is* mild *obstructionism. When faced with a really* dynamic *and* important *change, the reaction is* malevolent *obstructionism.*

FULLER

I certainly agree with you. I have 110 patents around the world. In late years, they've produced millions of dollars of revenue. I've never had an "expert" who ever comprehended in any degree the importance of any new development on which I was working. While this is deplorable, it's also understandable in the big corporations because research and engineering heads, confronted with something from the "outside," become very defensive because they believe that acquiescence or approval would imply an admission that they are not alert themselves.

REED

This automatic rejection of the new and different can be very an-

noying to the innovator but somehow I can't bring myself to believe that it is entirely the fault of the technical person. In some cases he was just overcautious. In others I suspect that something basically amiss in the corporate philosophy reinforces this attitude.

Merrit Williamson, now the head of the engineering department at Penn State, tells the story about research in a very large aircrafts parts corporation. The president called him in, pointed to a newspaper article, and said: "Dr. Williamson, this newspaper says that they don't know why grass is green. I understand it's important. I want you to find it out."

There seems to be no general understanding of the innovative process. A corporate head will call in his research chief and give him hell because their competitors have created a new chemical. The fact that it's in a completely different area of investigation from that being currently pursued in plant doesn't seem to make any difference to him. In such an organization, fear is the natural reaction when faced with change from the outside.

FULLER

I prefer to think of it this way, Stan: We deal in the unknown and unprecedented and we feel comfortable in this environment. Most people, when confronted with a new invention, feel uncomfortable. They are really embarrassed by this strange circumstance. I have found, my whole life, that I've had a problem dealing with society, because I'm dealing with that-which-is-not-obvious-to-the-rest-of-society. I have found that the universe is actually operating in an entirely different way from the way society thinks it is. Society living in a sort of "fault." The kind of "fault" I'm thinking of is like an earth fault, like a great cliff, a great discontinuity in the earth's surface. There are great discontinuities in the public's image of what the universe really is.

REED

This same sort of tunnel vision exists at all levels and in all societal groups—few corporation executives can see outside their own corporate walls. And those few that can see outside, through their own country, don't perceive the larger laws that are operating worldwide.

FULLER

Yes. There are many ways of looking at this. For one thing, there's tunnel vision that's limited by time rather than space—for society's view of life is very different from the actuality of what evolution is bringing about. Back in Chicago in 1933, and again at the New York World's Fair in the late thirties, they put great capsules down very deep in the ground. The purpose was to document the lives of that time, but essentially to tell later societies how inventive and forward-looking we then were. If you go back and look at those documents today, all of society would be mortified at what they thought then was important and true.

Therefore, when you and I are speculating on "that-which-has-not-yet-happened" and try to explain it, we must always bear in mind that society cannot be "forced" any more than nature can. Further, we must not predict that which is unnatural and which violates the basic laws of nature. As inventors we know the surprising things that can result when we combine two or three principles that are operating in nature—principles the other fellow doesn't even know exist; little wonder that he does not understand. In most of my work I have applied well-proven laws of mechanics, and this *is* nature, and though by law we can't patent a basic law of nature, most of the things I have developed, such as geodesic structures, are really direct borrowings from nature converted to a form that man can use.

The problem is that society does not begin to understand the nature of the universe. But there are even greater difficulties—difficulties in communication that are inevitable when you are involved in the innovative process. Whenever there is a new technique invented, it requires the invention of a new language, a special language, to serve it. These are the instruments we use to climb over this great "fault," the societal discontinuity. The problem with most innovators is their inability to invent the communicating instruments along with the invention. In my work I've always attempted to establish a continuum, not only of mechanics, but a continuum of ideas and a suitable language to go with them. Many of the "faults," strangely enough, are created by technical people themselves. Take the simple word "solid." We have "physics of the solid state," a very late phase of physics, very improperly called "solid." Even in the "solid" state, the voids between atoms are as the voids of space, and the nucleus itself is as empty as space itself. But the concept of a solid state was a most comfortable kind of concept when compared with the statistical generalities and thoretical indeterminacies of the real world of the atomic state.

REED

I suppose we could get trapped into a duality of finger pointing between the research guy and the corporation head. The corporation head says: "Research, you're too narrow. You don't get out enough and see what the world is like," and research points to the corporation head and says: "If you'd only studied a little physics you might understand what the world is all about." Buck, there's a parallel here that I've been working on—in fact, I've been doing a little writing in the area. I'll get in a plug now for a new book. It's called EDUCATION, AUTOMATION, AND HUMAN VALUES. *There are chapters by Margaret Mead, Hubert Humphrey, and many others, and I have*

Photos in this article courtesy of MERGERS & ACQUISITIONS

a chapter in there called "Automation, Education, and Creativity" and there I talk about the innovative process and our basic educational system which is tied very much to rote learning.

The rote learning process results in what Henry James referred to as being "trapped by the pretense of finality in truth." Your way of saying it, I remember from one of our panels at the University of Colorado last year, is: "Truth is a verb." Both these statements, yours and James', impress me very much. I agree that "truth" is a verb. But it doesn't really get through to most people. Many people find it necessary to make the universe complete around them, for to be surrounded by the unknown is profoundly disturbing to most individuals. Since we (and they) know damn little about the universe at all, it means that most of the surroundings of most individuals are 90 percent superstitions perpetuated as "truth." They pluck the little bits of the universe they do understand and expand them. In this fashion they build a wall of reaction to the new and the different.

This automatically introduces the subject of change—and we both know that change is an inherent part of the functioning of the universe. But it's hard to handle change in a society striving for security found in things "known."

FULLER

Stan, you're not the first one to note this, this is the great jump of Einstein over Newton. When Newton recognized—really authored—the general concept of mechanics, he thought of energy as going "out of this world" (to use modern young people's language). Therefore, Newton and many after him thought of the universe as running down, and many of us were brought up in an educational complex of ideas and concepts such as I was exposed to at Harvard where the universe was always "running down." Now, therefore, if the universe ran down, energy ran down, and it was accepted as a general law to be applied to many things. One was even expecting wealth to deteriorate! You got into trouble by spending, and so forth. This was the essence of the theories of not only the financiers of the Newtonian Age, but of most other disciplines as well. But this age ended when the world's scientists began to make experiments of a more inclusive type, and they discovered that when energy left this system it could only do so by joining another system. It didn't go out of this world at all, and no experiment could be conducted that didn't show that energy could be accounted for 100 percent,

and the running down *philosophy* (for that is what it was), that made so many theories easily complete, was completely shattered by the Einsteinian concept of the universe.

REED

There is real danger for the society that believes that it *has the final answers. This "mature society" will automatically find itself in trouble for it must resist change—forcibly.*

And when we discuss change we must talk about both people and institutions. People are necessarily ambivalent in that they are both members of society and constituents of a variety of highly specialized institutions. In fact, they derive their incomes from them—they survive by them. As members of society they are served by many institutions, including *the one they work for. The point is that as members of society they are all for the* other *institutions to change, but as stewards of their own particular institution they are concerned with their own survival which usually means preservation of the* status quo. *Thus, you can not only understand the technologically trained person who reacts negatively to change from the outside but why his fear reaction finds support at other corporate levels. Isn't society's great problem today to discover how institutions can be made to change rapidly? But first the relationship of individual and institution must be understood, and before this can come about we need to discover how institutions are created.*

There is no doubt that institutions are created by people, large numbers of them, who demand *their creation. But unfortunately, once created, they have a way of perpetuating themselves in the original image and become most unresponsive to change because the stewards survive by virtue of their nonchange employment. While we both know that our industrial complex has finally learned that change is necessary to its proper functioning, it's only* one *sector of society. How can we impress upon the balance of society that change is an integral part of societal evolution and that institutions must learn to change also?*

FULLER

Well, so many facts are operative, you've got to present it in a form where they can see the players coming on the field and see the moves they are making. You've got to open up their tunnel vision. I remember when I was assistant to the Director of Research of Phelps Dodge in 1936 to 1938 in the depression. I saw that the Wall Street financial power hierarchy had broken down. It had failed. But this failure insofar as the copper industry was concerned really had its roots back in 1917 when more copper was mined and put to work in 1 year than in all history. But the problem then wasn't so much in production of the raw material, it was in converting it to war uses. Phelps Dodge bought up all the processors, bought up all their own customers in order to get war-useful products from the stream of raw material. When the depression came they had this huge productive capacity, and they thought the only solution to profit was *selling*. Hold the products constant and just sell more of them. Anybody can take copper out of the ground, anybody can run the machine, but the people that *really* make the money are the salesmen. Technology doesn't matter—keep the machinery turning over, stamp, stamp, stamp. That's the way to make money.

I wrote a report to the president of Phelps Dodge pointing out that they were wrong. First, you must find out the basic nature of copper—c o p p e r-in-the-marketplace—and next you must change your products and create new ones from the knowledge. Thus, will you create ever-new markets. It was hard to convince anyone in 1938 that innovation could sell more products, could keep the mines going and the machines producing far more easily than intensified s e l l i n g. They wouldn't buy it.

In my studies I had detected that vast quantities of the 1917-produced copper was soon to appear in the marketplace as scrap and would inevitably disrupt the entire copper market, the mine-smelter-plant-processor-hegemony would face increasing competition from independent fabricators when sources of raw material were readily available.

And it came to pass just as I predicted.

★ ★ ★

REED

Have you noticed, Buck, that society, at least our American society, seems to be concentrating its attention on three "messy" areas: The mess that is the city, the mess caused by the automobile, and the "mess in Washington." Don't all of these messes come about because man does not understand the functioning of the societal universe? I wonder if you've thought about these problems and whether you have any concept of how the mess will get cleaned up!

FULLER

These problems are all related—they're simply the result of evolutionary forces working on man. You cannot break them apart into separate problems any more than you can break down Darwin's thesis and say that elephants followed different laws in evolving than did man—when we know that they both followed the same.

This "workshop" approach to problem solving is one of the reasons that the world has not developed faster into a place where human beings could live comfortably. Man, inexorably, has become world man, and he must learn to think as world man. Here we sit in New York and you came from Washington this morning and I came from

Tokyo. We'll meet, exchange some information for a few hours, and then we'll both be off again. We both live more in hotels, motels, airplanes, ships, telephone booths, automobiles, and other evidences of the communicating and the transporting world than we do in our homes. You forget that the world is round and that it's all connected together by wires and pipes, water and wireless, land and air. You forget that we travel and communicate constantly world around. The era of world man has begun and most of the problems of the world such as you opened with stem from peoples' inabilities to think in *general* terms or in world terms.

For instance, when you consider the new mobility of man, you know that he doesn't need to own an automobile, he can't take it with him on the airplane so he rents one when he stops. I've owned 55 automobiles in my life. I find I have no need to own one today. I rent one when I need one. As soon as more than 50 percent of the automobiles are rented, they'll be properly designed and won't be messes any more. Does your telephone look like a Teddy Bear one year and a Kewpie Doll the next?

I really don't even need a home any more, I'm never in it. It is the essentially mobile nature of man that makes the modern city an anachronism because it is a stable phenomenon trying desperately (and failing) to adapt itself to the mobile needs of man. To understand these problems, we must begin with the beginnings of man on earth.

Botanical life evolved, using air, water, sunlight, and earth nutrients to exist. It stayed in one place and these essentially transient essentials came to it. Where there were proper combinations of these essentials there was luxuriant botanical life, and where any was lacking or in low supply there was little or none. And the supply of botanical life waxed and waned with the supply of the essentials, both seasonally and over longer periods.

Now zoological life, in contrast to botanical life, evolved differently. Zoological life survived because it *was* mobile. It could follow the botanical food supply as it waxed and waned. If it died out, man could find a new supply. Thus man evolved as an essentially mobile creature: A food hunter. But he soon discovered that he could have a higher probability of survival if he located a good food supply, "owned" it, and defended it against other men and beasts.

Then it was only a short step to his selecting the better plants and aiding them in survival by assuring them of a good supply of water and air and sun and nutrients and he assured his meat supply the same way by domesticating beasts and feeding them on his controlled food supply. So that man who survived by virtue of his essential *mo*bility, was now surviving by his essential *sta*bility. The concept of "property" and "ownership" came about because man wanted to reap personally in the fall what he had sown personally in the spring. Property rights derived essentially from metabolic requirements. Late attempts to claim that there is something peculiar about modern man, that he differs from the other beasts in not respecting the territories of others, is nonsense. If there is mutual respect for territories, it is incidental to the main force in survival: food. Territories are really larders. The social interface between bands of baboons or between animals of one and the same species is the food supply interface and two-thirds of the world's people are, in a word, underfed.

As essentially mobile man followed the food supply, both natural and cultivated, he converted the food to energy by the metabolic process.

He needed to conserve this energy just as he needed to conserve his food supply. So in traveling around, he and the other wild creatures, also needing to conserve energy as they moved across the face of the earth, tended to follow the path of least resistance, and it was inevitable, geography being what it is, that these paths crossed. There were some places where the resistance was very low and here many, many trails crossed and it is here that the first towns or cities grew up as *interference* patterns of one path of communication with another.

It is here that civilization began. It began out of the chance crossings of trails and grew from the necessity for man to communicate—perhaps how man could grow more and better food, or even to trade food or tools to produce food or tools to defend the food-growing places. Cities grew out of the need for communication and trade and, lacking credit devices, they were forced to bring their products *physically* to the city to effect a *physical* trade of the one for the other. Even today one can see the vestiges of this in the open markets of the older cities with people sitting in stalls waiting for someone to come buy.

A city is thus, in essence, nothing but a great service establishment created to serve the needs of the transient. As such, the city has basically nothing to do with the *production* of food or goods but only to arrange for their transfer.

Man deploys *from* the city for his physical life and *to* the city for his metaphysical life. The parts of the city such as the docks and wharfs and rail terminals are *incidental* to the main function of the city: The transfer of information (credit is a perfect example). The wharfs and terminals are there because the interference patterns of physical transport coincides with the physical mobility of man, reinforced by the fact that man before the days of credit most often physically accompanied the goods that he manufactured and owned. *Transshipment* of goods took place physically in the city because of this early requirement which has now been nearly totally offset by the development of credit devices and newer transporta-

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tion media. In future, the use of a city for the *physical* transfer of goods will be silly. Cans and frozen food packs can take food from any place to any other place on earth. Satellites can gather and transmit information as to the total food supply on earth and can tell where it's in surplus and where it is lacking. The redistribution process, logically, would never take place through a city.

The same holds for the processing of goods, but with an added reason: Technology.

Most of the technological improvements were and still are a product of the intellectual communication between men that takes place in a city. Thus, the tanning of leather took place because of the coincidence of technology, hides, and chemicals. But with the technology mastered, there is no need to haul all of that stuff into the crowded city and then move it back out again. Thus the city has another purpose, it is there that the intellectual engagement takes place *technologically*. And since technological activity takes place, in the main, in the area of an institute of higher education, the next and most proper function of the city is as research laboratory and as university. I predict that the great urban centers of the world will deploy all of their physical activity to the suburbs or the countryside and will concentrate on fulfilling the intellectual needs of men. New York City within 25 years, if not sooner, will become one great information center dealing in research, education, and information (credit). If there is manufacture, it will be an anachronism. The only manufacture that should be left in New York City should be the manufacture of assemblages of information such as typewritten letters, which today in cost outnumber the physical manufactures of the cities by many tens of millions of dollars. Any city's program to hold what industry they have and to attract more in search of a balanced "economy" is a mistake of enormous proportions. Deployment of the entire function of storage, transshipment, and transmutation of raw goods into products must take place *away* from the city.

This concept of a city as an intellectual center is grasped by few people. The majority still thinks that it is necessary to have all elements of society in a city and they resist change. Thus, the Fifth Avenue Association fought a tunnel from Long Island to New Jersey for many years and for these many years clogged the streets of Manhattan with tens of thousands of trucks *in transit*. We wonder if they thought that it would cause the removal of the loft shops to the countryside or if the merchants could have thought that the truck driver (or anyone else) *in transit* was going to stop and buy. Where would he park? This same myopia is found in town after town all over the country. Highway departments *still* are not allowed to bypass many towns. For some reason people think that drivers like to crawl through towns bumper to bumper. But who wants to stop in such a town to shop? When towns *are* bypassed, trade may fall away for a year or two, but with the transient traffic gone, the town can refurbish itself and soon it becomes *a place to go to*. As soon as New York City gets rid of its tens of thousands of trucks either carrying goods in transit or from one loft shop to another, it will begin to live again. Already the transshipment function is beginning to take place outside the city, the city is effectively bypassed by the warehouses which used to be downtown and are all in suburbs or even beyond. Million-dollar-an-acre real estate should be used for important things, not to store goods in transit.

The "mess that is the city" derives from a lack of understanding of its essential nature, and the essential mobility of man is related to "the mess in Washington," for Americans move their domicile with everincreasing frequency and thus disenfranchise themselves at an ever-increasing rate. And it is the better educated men that move the more frequently leaving the franchise to be exercised by the stay-putter who's world is narrow and circumscribed.

So you see that the problems are really interrelated—they stem from the changing evolutionary nature of man himself—changing from stable to mobile at faster and faster rates.

REED

There are other, newer, and unmistakably chaotic forces in the world that are having and will continue to have an increasing effect on the future of man, in and out of the city. Men are increasingly the "product" of civilization, rather than the reverse. One would think that with man's ability to "create" environment, he'd create one compatible with human wants! But he can't, for he is more and more "homo economicus." *I doubt very much that* homo economicus appalachianus *will ever "adapt" to Appalachia or that the American Negro will "adapt" to the new ghetto-jungle that has been created for him. The understanding of "the mess that is the city" requires vast understanding of man himself, and the cultural anthropologist, will be the essential researcher in designing the new world of man.*

For man is not only homo economicus, *but* homo familius *as well. He is the product of his immediate compeers and family. Your frequent odes to man's "individuality"—or did you once use the word "uniqueness"?—interest me. They bisect with Bergson's concept of* "homo faber," *or building man—man who must change nature. The problem with* homo faber *has been that he has never been enough of a comprehensivist to build anything to live in that was both beautiful and functional at the same time whether home, city, auto, or aircraft. Without a knowledge of the physical laws of the universe—all his buildings*

(*Continued on page 27*)

On-the-Job Training . . .

A Boon to Employers

HUGH C. MURPHY

On-the-job training is just plain good business.

In more than 30 percent of the establishments participating under the MDTA on-the-job training program, in-plant formalized training has been introduced for the first time, but in heavy turnover industries, such as service, employers have reduced turnover rates as much as 12 to 16 percent in 1 year.

However, the most significant result from these programs is that nearly 90 percent of successful trainees continue to work for the participating employers!

To date, the Manpower Administration has authorized more than 240,000 trainees in these on-the-job programs, involving more than 6,000 employers, through November 30, 1966. About 700 different occupations, all in the semiskilled and skilled categories, are represented, and more than $126 million have gone to employers to help defray expenditures for instructors, training manuals, equipment, and materials wasted during the training program.

Thus, the average small employer of limited resources, who formerly may have given little thought to formalized training in his busines, now has the opportunity to share in the benefits of creating his own manpower.

Eventually, it is hoped that the employer will continue this type of program after the Federal Government has stopped providing direct financial assistance and technical assistance will continue to be available through field representatives in more than 165 cities.

It is estimated that the wages paid the trainees, coupled with the advanced wages they receive after training is completed, produce income tax funds which return the Federal investment in human resources within a period of 2 years.

In the case of prospective workers who have been found lacking in qualifications to fit the employer's basic requirements of Manpower Administration has sought to provide as much prejob training as necessary to prepare the disadvantaged, poorly educated, inexperienced job prospect. OJT contracts couple the employer's training program with a preliminary session of from 4 to 12 weeks in basic reading, writing, and arithmetic. By the end of June, we expect 60 percent of all OJT programs to be in this coupled category.

To help insure that trainees are selected from among the long-term unemployed (27 weeks or more) as well as from among the disadvantaged, the Manpower Administration plans to have all future trainees selected exclusively through the local offices of State Employment Services. This procedure will tend to tap first those who are receiving or have exhausted their unemployment compensation insurance benefits.

Hugh C. Murphy is Administrator, Bureau of Apprenticeship and Training.

While some employers provide their own classrooms and machine shop training facilities, the first 12 weeks of tool and die apprenticeship usually take place in high schools or vocational schools.

A Beginning for the Rural Disadvantaged in Louisiana

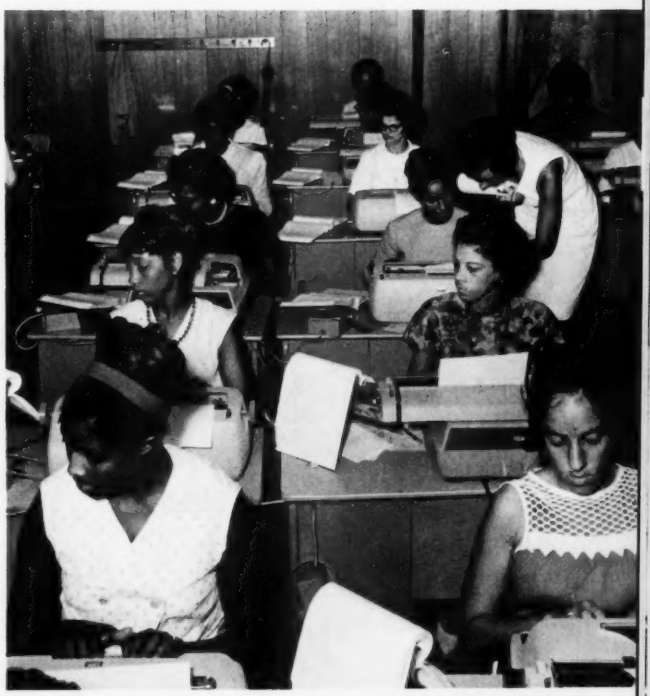
Project Seesaw

"This is the first time I've ever seen my name on a paycheck. It's so beautiful I'd like to frame it. Now I'm a taxpayer." These were the proud words of a 25-year-old Negro woman whose life has changed radically. Abandoned by her husband and supporting four small children on welfare, she could not even get a job as a domestic, because of the labor surplus in her small Louisiana town. Now, she commutes 90 miles a day in her newly-bought Volkswagen to her secretarial job at Tulane University in New Orleans.

A 47-year-old Negro man who had known nothing but a life of part-time work as a carpenter or in the sugarcane fields repeats over and over, "This is the first time I've had a steady job in my whole life."

These are two of the 150 disadvantaged persons who enrolled in Special Extension Education for Secretarial and Agricultural Workers (SEESAW), an MDTA training program sponsored by the Institute of Human Relations at Loyola University in New Orleans.

The experimental and demonstration project was designed to provide men and women of four isolated rural parishes in southern Louisiana with marketable job skills, basic education, and personal development guidance to prepare them to get and hold decent jobs.



The force behind Project SEE-SAW is Father Louis Twomey, the dynamic director of the Institute and a member of the National Manpower Advisory Committee.

Father Twomey firmly believes that "the University should be involved in community problems. Something—n o t e n o u g h—but something is being done in the cities," he says, "but virtually nothing is being done in the rural areas." He believes that these disadvantaged must be sought out and helped to gain employment.

Federally funded and integrated, the project was a breakthrough for conservative St. Tammany, St. Charles, St. James, and St. John the Baptist parishes. Training was divided among 3 centers, 2 for training 90 women in secretarial skills and the other for training 60 men in welding and mechanical skills. At all centers, training lasted for 6 months and included basic education and classes in personal development and job information.

Most of the women had had some high school education, and some had graduated. But, this meant little as far as skills, because the schools are generally poor, especially for the Negroes. The men had about a fifth grade level of education and required more basic education than the women.

An age limit of 30 was set for the secretarial training, but exceptions were made for several older women who were anxious to enroll. Ambition was not centered in any one age group, for the men ranged in age from 16 to 66. The older men enrolled mainly because of a burning desire to learn to read and write.

Of the 150 who were accepted for training, 134 graduated. This is a remarkable record considering that for some trainees coming to school meant getting up before 6 a.m., coming as far as 60 miles, following a grueling schedule of classes from 8 a.m. till 4 or 5 p.m., and not getting back to their families until about 8 p.m. However, one of the training centers was purposely located in a suburb of New Orleans to force the women to get into the habit of commuting from their outlying communities. For some, the trip to school was the longest they had ever taken. One girl wrote in an essay during the first week of class, "My trip on the river road to the airline (highway) is an experience I shall never forget because it is the most drive I have ever did." The distance is about 30 miles.

One center which had enrolled only 30 girls had an extremely close-knit group. The women kept up each other's morale, and the center proudly graduated all 30—setting an unofficial record for no dropouts from a training program.

About 80 graduates of those actively seeking work were placed in jobs by 3 months after training ended at the first center, a month after it ended at the second, and a couple weeks after the third closed. In the last center, half of the 56 secretarial graduates had jobs only 2 weeks after they completed training and at a time when job openings are normally scarce. The majority had not expected to go to work until the beginning of 1967.

Many of those working are receiving pay beyond their wildest dreams. The secretaries are averaging more than $300 a month, and some are receiving nearly $470 a month. An example of the women whose dreams have come true is a young Negro girl in her twenties who had dropped out of school in the 10th grade to help support her younger brothers and sisters. Working as a maid, she had received at most $80 a month. After 6 months of training, she is a receptionist at Boeing and getting $410 a month.

The men, most of whom had known only seasonal work in the sugarcane industry for about 90 cents an hour, are getting a median of $2 an hour, and some are receiving as much as $2.50 an hour.

In addition to the personal benefits of the training, the project shook the foundations of some hardboiled attitudes. Located in vacant stores, a union hall, an education building of a white Methodist church, the integrated staff and trainees entered right into the middle of town activity and unassumingly went about their business. Although Negroes were in the majority among enrollees, one center achieved a nearly 50–50 racial balance.

It is a tribute to the project's success and to the communities that there were no bad incidents, even though one center, a former drugstore, had two sides of plate glass windows which almost invited rock throwers. The only show of opposition was a letter to the editor of one small town newspaper.

The writer complained that the program was taking away the fine ladies' maids and training them to work for the Government bureaucracy in Washington! However, a reply from the project's staff was also printed, and no further trouble ensued.

Townspeople came not only to accept the program but almost to resent the group's "quitting" when the training period ended. In one town, the head of the Chamber of Commerce became the program's staunchest supporter and hired one of the graduates as his personal secretary. People are already looking to the future. When one staff worker parked her car on the wrong side of the street, the local policeman spied her. "Lady," he said, "that'll be a fifty cent fine, and by the way, when is the next project going to start? My wife is interested."

The trainees got along quite well among themselves and formed strong f r i e n d s h i p s. The men formed on their own a club which met every 2 weeks to work out problems such as sinking morale. Even though school is over, the club is still going strong.

A superior staff was certainly a major reason for the program's success. In addition to center supervisors and teachers, each center had

counselors and counselor aides, who ironed out individual and group problems. Each trainee was scheduled for an individual counseling session about every 10 days, and group sessions were held frequently. Besides keeping up morale and instilling self-confidence, the counselors visited homes of trainees who threatened to drop out, acted as marriage counselors, and generally became trusted confessors. One "water-logged" counselor reports countless trips to the drinking fountain, so that trainees fearful of coming to her office could approach her on a more informal basis.

In the men's center, a woman counselor organized a group of the men's wives which met regularly for films and discussions on such things as early marriage, personal health, and sewing instruction.

The number of graduates placed in jobs is remarkable for an area where prejudice in hiring is still very real and where the Employment Service does not exist. The staff works tirelessly phoning and visiting employers and arranging job interviews. Some employers have become very personally caught up in the project and have devoted much time to interviewing and setting up contacts with other employers.

In some cases, secretaries who have been placed are the first Negroes in their offices. Generally, employers describe the graduates they have hired as "working beautifully." They are competent, self-assured, and highly motivated.

Placement is a mammoth task in some cases. For example, among 48 men graduates, only about 5 have phones and about 8 have cars that run. It is sometimes almost impossible to contact those who live in isolated areas up the Mississippi River about job possibilities.

However, an intensive followup program is helping the staff keep in

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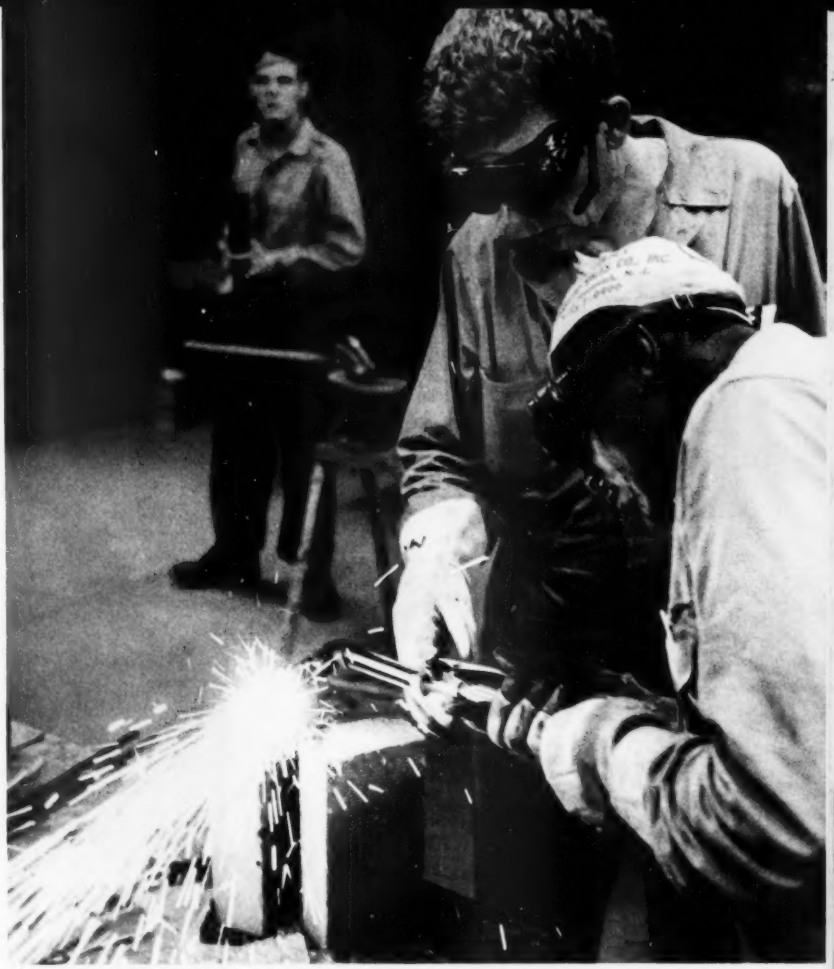
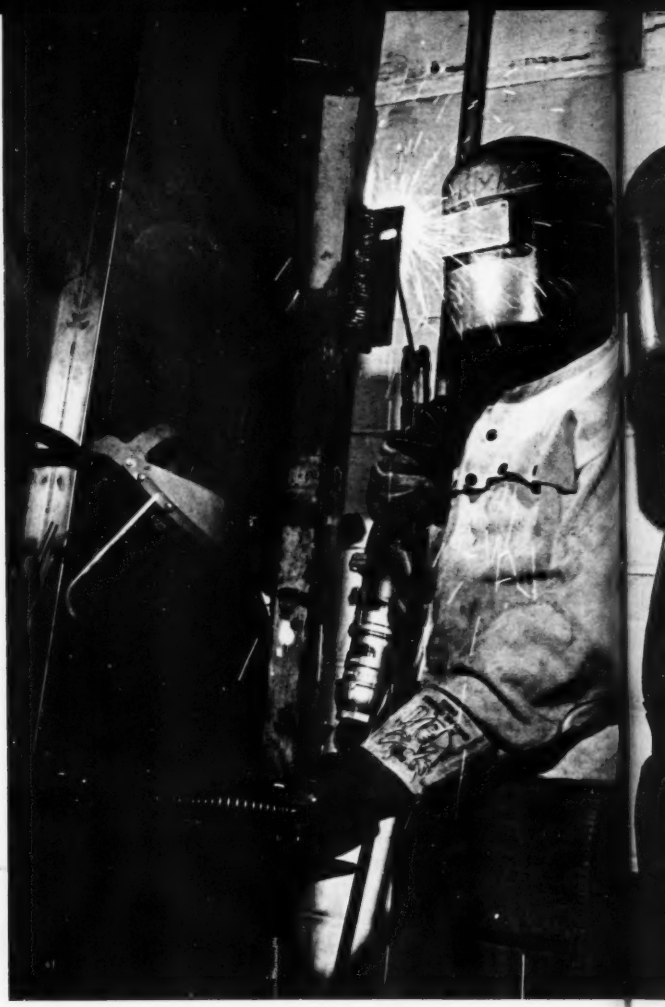


Safety precautions are stressed during the training course.

Robert Heite, instructor, explains a practical application.

MDTA Welds A New Link



JAMES M. ROSBROW

"Inmates weld way back into society" was the way one headline writer put it. Another said: "Prisoners learn welding for reentry into society."

The press was describing the Nation's first MDTA training project at an adult correctional institution to meet an acute shortage of combination welders and to rehabilitate inmates at the New Castle County (Delaware) Correctional Institution.

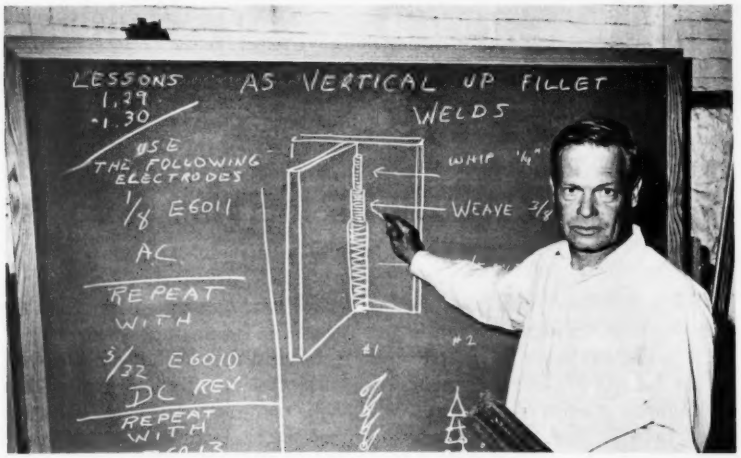
The 34-week course, which began on February 14, 1966, developed from discussions between Joseph A. Bradshaw, Chairman-Executive Director of the Employment Security Commission, and Dr. William Nardini, Commissioner, State Board of Corrections, at meetings of a Governor's coordinating committee.

Response was enthusiastic. The 15 trainees were selected with a minimum of time required. Three persons gave up "bonus" jobs in the upholstery workshop and two delayed applications for parole so they would be available to be enrolled in the course. Dropouts, a familiar problem in institutional training because of lack of motivation, did not occur. Of the 15 enrolled, the only inmate who did not complete the course was stricken with appendicitis in the middle of his training.

Interest in the program was demonstrated by other States. Henry Hammann, State supervisor of community employment programs, Maryland State Employment Service, visited the institution at midpoint in the course and was given an opportunity to talk with trainees and representatives of all three agencies involved in the project.

Joint appraisal indicated complete agreement as to the value and desirability of the course. In the light of a continuing shortage of

James M. Rosbrow is Secretary, Delaware Employment Security Commission.



welders in the area, a second course was begun for 18 trainees, beginning November 11, 1966, and expected to be completed by about June 1, 1967.

Perhaps the inmate reaction is best demonstrated by one member of the class, who in a presentation during a "language arts and public speaking" session, said:

"Society makes room for a person who has something to contribute. I've never had a trade. To me this means a lot." (This trainee was one of the two who had postponed application for parole.) When placed, he experienced an overtime situation in which his first week's earnings were $193.

Similar is a "Letter to the Editor" to the Wilmington Evening Journal, which reads, under the editor's caption of "Unexpected Second Chance":

"Being an inmate in the New Castle Correctional Institution and participating in the training courses for welders, I would like to express my feelings regarding the program.

"I am doing a 3-year sentence here for armed robbery which I feel to be a very fair sentence. I was interviewed and selected to train to be a welder. Before this, my time here was a struggle, day in and day out. I no longer think of my stay here as being a punishment, but a period of time in which I am preparing for the future. I will leave here with a handicap because of my incarceration. If society will accept me and give me another chance, I can overcome my handicap and be as good a citizen as I hope to be a welder.

"I don't know how this program came into being, but we, the students, owe a great debt of gratitude to the responsible parties for bringing it to us. I hope that the success of the program and our success in the future will be a reward to them."

Early in the discussions, the correctional staff pointed out that inmates, most of whom were school dropouts, were "test-shy" and it was suggested that further tests would merely alienate the potential trainees. It was agreed that selection would be made by the staff psychologist and the classification board in the same manner that an inmate would be given any other assignment in the institution. Placement in the course was made available to inmates of all three county correctional institutions, with transfer possible if a person from the other counties were enrolled.

The vocational training was designed to meet all industrial requirements and to culminate in successful completion of the certification examination of the American Welding Society. This was accomplished.

Seven of the trainees were paroled at or shortly after completion of the course and were promptly placed: Five with a single company and two with another, all at trainee rate of $2.72 per hour. The seven other trainees were not immediately released but are being individually reviewed for parole in accordance with their respective personal circumstances.

Notice of the welding course and its goals was taken from the State bench when Superior Court Judge William T. Quillen modified 5-year sentences of two prisoners, whose appeals had been dismissed by the State Supreme Court, to 18 months, to permit them to be considered for jobs at the completion of the welding training.

Employment Service AIDS to Employers

Over 2,000 local offices of State Employment Services depend on jobs made available by employers of the Nation to carry out their responsibility to assist all workers who need help in finding suitable employment. Like a double-edged tool whose sides must operate simultaneously for it to be effective, these offices stand ready to reciprocate with services to employers.

The Employment Service is concerned with improving the mechanism of the job market, including the recruitment, selection, placement, training, and maximum utilization of workers. It is there to help employers in these areas of personnel work.

Recruitment of qualified workers helps employers meet needs resulting from attrition, plant expansions, and staffing of new plants, establishments, and offices—in all occupations: Professional, technical, and managerial, as well as skilled, semiskilled, and unskilled, from the local area, if possible, or from other areas.

- Through a nationwide interarea recruitment system, the local public employment office can determine areas where applicants with the best potential are apt to be located, so that an employer with an opening for a certain type of worker, and an applicant who is qualified for that job—each in a different city—can be brought together.
- The local Employment Service office can assist employers in arranging recruitment itineraries, and help prepare newspaper and radio and TV advertisements to aid in attracting workers from the area or from out of town.
- In addition, a network of over 120 selected offices throughout the country expedites the recruitment of technical, professional, and scientific personnel for employers.
- Under cooperative relationships with many professional associations, the Employment Service provides placement services at annual conventions of these groups to promote employer-applicant contacts for their members.

Selection of qualified workers is facilitated through modern interviewing and testing techniques which the Employment Service has developed.

- Aptitude test batteries have been validated for more than 500 specific occupations. Such tests, designed for use in selection and counseling, measure potentiality of inexperienced workers for acquiring occupational skills. These tests are now being studied and revised to make them more effective for discerning which of today's numerous inexperienced, uneducated, unskilled, and otherwise handicapped workers can, with training, meet at least minimum requirements of employers for entry level jobs.

The Employment Service will, if feasible, develop tailor-made tests to meet employers' needs, if such are not among those already in use for a large variety of occupations. Test selection of applicants benefits the employer.

- Upon request, Employment Service personnel may, where mutually beneficial to the applicant and employer, make results of tests available and provide guidance to employers on their interpretation. This should help employers place applicants in jobs best suited to their potential and can be used in promotion, transfer, and selection for training on the job.
- Proficiency tests, designed for use in selection of experienced workers to measure occupational skills already acquired, such as typing and shorthand are administered to applicants by the Employment Service.

Utilization of Workers.—Underutilization of skills, lack of opportunity for promotion, unsatisfactory working conditions, low wages, and poor supervision contribute to absenteeism and high turnover.

- Based on years of experience in working with many employers, the Employment Service can assist employers in analyzing the causes of personnel problems and in suggesting methods of selecting and maintaining a vigorous, stable work force. Tools and techniques have been developed to assist in personnel planning through job analysis and occupational classification to deal with many manpower problems. These include organizing jobs and job ladders; establishing job families for training and transfer purposes; establishing realistic job requirements; etc.
- Employment Service analysts work with employers in preparing job descriptions, writing job specifications, developing personnel record forms, studying turn-

over and absenteeism, and providing wage rate information.

Local offices of State Employment Services are available to explore with employers scheduled or foreseeable technological changes and their potential effects on workers and plant employment patterns. This service permits the resources of the local office and the experience of the Employment Service to be brought to bear on the problems of fitting the displaced workers into new employment.

Training.—Employment Service offices can provide information or initiate training under the Manpower Development and Training Act and other programs to help in alleviating existing shortages of qualified workers and in meeting expected needs for additional trained workers.

The following actions will help employers to obtain the best possible service:

1. List job vacancies with the State Employment Service, either by telephoning or visiting the nearest local office, giving as much information as possible about the jobs.
2. Invite an Employment Service representative to visit the business establishment—he can learn about the kind of work that is being done and is required and the employer can learn about services available through the local office.
3. Job qualifications should be realistic and the pay offered should be in line with the requirements of the job.
4. Give the Employment Service enough time to find the best applicant for the opening.
5. Inform the local office promptly of hiring decisions regarding applicants referred by it.
6. Refer to the local Employment Service office those applicants who apply directly to the business establishment, when no jobs are immediately available for them.

Job Market Information

Many industrial and business firms find the Employment Service a source of current information on the level and trend of employment and unemployment and the availability of labor according to occupation and industry and by area and State. This information is useful in recruitment activities, in planning expansion or relocation of operations, in sales and market analyses, in planning advertising and promotional campaigns, and for bidding on Federal procurement contracts or in seeking Federal loans, in the case of areas with substantial labor surpluses. In any situation where knowledge of the overall manpower conditions of an area, State, or the Nation is necessary, many businesses rely to a great extent on the job market information available through the Employment Service.

Forty-nine States and 677 areas regularly publish newsletters containing labor supply and demand information, as well as data on wages, labor turnover, and other information indicating manpower conditions and outlook. Area and national manpower information is also available through the EMPLOYMENT SERVICE REVIEW and AREA TRENDS IN EMPLOYMENT AND UNEMPLOYMENT, both published monthly by the U.S. Employment Service.

AREA TRENDS IN EMPLOYMENT AND UNEMPLOYMENT is unique in that it is the only national source of current unemployment data for the major U.S. production centers. It lists major, smaller, and very small areas of substantial or persistent unemployment, identifying the type of Federal assistance for which each area is eligible. The bulletin also includes a national summary of employment and unemployment developments in major areas, narrative information on the short-range employment outlook in major industries in selected key production centers, and a summary of the occupational demand-supply situation in 150 of the largest areas in the Nation.

Creativity

(*Continued from page 18*)

must fall down when he tries to express himself *as an individual. Without a knowledge of the laws of the societal universe, his cities must be failures when he tries to express himself in a societal manner.*

By uncovering the order in the physical universe, man's buildings fall down ever-less-frequently. But this same drive as homo-faber, *where man is individualistically creative, can create vast disorder in the societal universe. I wonder whether there are, or ever will be, any laws of the societal universe that are comprehensible. Must we always have societal chaos? Does no order emerge? Ever?*

FULLER

Well, Stanley, for all previous time this was true. But now there's hope. The architects of today are concerned with "livingry" to displace "killingry" as the focus of science and industry. This is really the designscience of making the laws of the universe serve man in a rational rather than an irrational way. Most of the world's human problems deal with metabolic essentials. To date, world society has developed haphazardly, randomly. As of today we are starting on a new era of control of the physical world.

As man's mind reduces phenomena to a small number of manageable concepts, he learns to exercise some control over the process of evolutionary change. Functions operating separately are recognized as conceptually alike. Bringing them together for greater efficiency—as happens in corporate consolidations as you very well know—is a modern aspect of man's anti-entropy order-bringing function. It's one of the processes that will contribute to the eventual goal toward which many of us are already working: that all humanity will become physically and economically successful.

New Manpower= Reduced Turnover

FRANK J. HABERL

There are some 3 million slow or limited learners (SOLL) of employable age in our Nation today. These are people who, on their own level of competence, are conscientious and dependable, and who exhibit honesty and propriety in their social reactions. To them, employment can mean many better things—more money, life outside an institution, and an otherwise unlikely opportunity for self-fulfillment. And for the employer, these SOLL employees can be a highly satisfactory and profitable investment.

In tapping this reservoir of human resources, we at Martin have received a two-fold benefit. We have found individuals who not only can perform a type of job well, but who consider the job not so much a means to an end as an end itself.

Frank J. Haberl is Manager for Martin Co., a Division of Martin Marietta Corp., Denver, Colo.

Sketch by Patricia Allott

The issues of moral and ethical responsibility, though valid, are unnecessary and inappropriate here, because to employ the people of whom we speak is just plain good business.

Why Are They Hard to Fill?

Our experience, on which detailed records were kept and analyzed, concerned only such jobs as janitor, dishwasher, yardman, and potwasher (particularly the first two) in the several cafeterias at our Waterton, Colo., complex. These jobs are historically and universally difficult to fill with other than transient, malcontent, or intemperate workers. Why?

We believe it is largely due to what might be loosely termed "boredom." The jobs just do not offer the interest, conditions, money, or opportunity for self-satisfaction ultimately required by the workers we are usually willing to hire. Consequently, there is often a tremendous (and costly) turnover of personnel in these jobs.

So we face the situation objectively. We have jobs to fill and there are thousands of people in every industrial or urban area for whom these jobs are not only a means to self-sufficiency but also a means of self-fulfillment—of becoming a part of a society that otherwise too soon rejects and forgets them. These people hang on to their jobs with particular tenacity, and when properly trained, are most often efficient, reliable, and cooperative.

Management's job in taking advantage of this great reservoir of repetitive-task workers, is to understand and appreciate the SOLL employee for what he is and can do. It is our practice to try to bring the SOLL employee up to being able to handle the job as regularly described and routinely performed—not to reduce the job to equal the innate competence of the SOLL employee.

In our particular experience with SOLL employees, every individual achieved a wide range of personal satisfactions from the job that was clearly manifest in high morale and a cheerful, cooperative attitude. The majority of our SOLL's had very good relations with the other employees. In fact, they were downright popular—and how many popular dishmen do we usually have? Two of the men employed were able to achieve reinstatement to full citizenship (certain rights of citizenship are annulled on being committed to a mental institution). Several have found that they could learn to read and have subsequently gone on to develop this ability.

Those who may be interested in taking advantage of this potentially great labor force should contact State or national rehabiliation agencies or other public or private institutions for the mentally retarded or write to: The President's Panel on Mental Retardation, Washington, D.C. 20210.

Describe the Job Carefully

Once in touch with a qualified source, proceed slowly and carefully, as different hiring and training methods will probably be necessary. For example, to ensure yourself of an applicant well qualified for the job, be sure to describe the job fully to the counselor or field service worker. There are many factors to consider but especially try to avoid applicants with such disabilities as motor-nerve impairment or a major personality maladjustment.

When interviewing and hiring, request that a parent or counselor accompany the prospective employee. Since this is a major opportunity for everyone concerned—the SOLL, parent, and social worker—everybody will pitch in to get the job done right.

The first day on the job is extremely important because the success of the entire venture may hinge on the rapport established. The SOLL applicant is usually and understandably apprehensive and nervous, so a calm, easy, friendly, and confident approach gets the best results. Yet he must be carefully and thoroughly introduced to the work area, the general area, and some of his coworkers.

Little commonplace things must not be taken for granted. Show him all of the things that will become a part of his work environment, and definitely show him the areas that he must avoid (such as machinery rooms, electrical substations, etc.). And, during the calm and easy presentation, show him also the employee accommodation areas; show him his locker and carefully explain how it is used. If it is to be his alone to use, make a point of this. Such a possession usually adds a consequential overtone of personal elation and pride.

Too much information or too many explanations at one time may be harmful, so the interviewer should try to be sufficiently perceptive to realize when the potential employee is becoming "saturated."

The training should be in the off-hours when he can work at his own pace and not be confused by the pressures of rush periods. Watch him in his practice so that every mistake can be immediately and carefully corrected in order to keep him from developing incorrect habit patterns. The SOLL will not be insulted by 20 corrections; he knows that he is a slow learner. On the contrary, he wants to learn and is eager for your guidance.

Need for Patience

Watch him for a while, and don't be impatient. This won't be easy, for you will notice errors in such simple matters that you will wonder how anyone could fail to perform them correctly. However, patience is the key to successfully training SOLL employees. (It took us many sessions, spread over a 10-day period, to teach one of our men to put forks in the container with the tines down and the handles up, but this man became our fastest operator at the soiled dish table and, even

after 5 years on the job, he is proud to be working for us.)

Once the SOLL has mastered one job and gained some little confidence, particularly the confidence that comes from having "normal" workers depend on him, he can often be trained in other jobs of an allied nature. Usually, the longer he is in a familiar area, the more quickly he learns. Actually, SOLL employees seem to learn in plateau-interrupted curves. They need fairly long times to practice and perfect their work. Then when they are quite competent and have gained a satisfying confidence in themselves, they are ready to take on a new adventure in learning.

During the years we have been concerned with this experience, we have been asked many pertinent questions. Here are our answers to some of the more common ones:

Q—Do the slow or limited learners act like children; that is, do they play around a lot and neglect their duties?

A—No! We have found them to be very serious about their jobs and particularly anxious to work with and please us.

Q—How do other workers react to hiring "mentally retarded" people to do the same or similar jobs that they are hired to do?

A—This question is asked very often. We recall that we were sincerely, though needlessly, concerned about this before we got into the project. We were surprised to find that many of our "regular" employees held a very protective attitude toward the SOLL's. They "opened their hearts" to them. One of our men has been driving a SOLL employee to and from work, even though it takes him far out of his way.

Q—Would these slow learners present a problem in a union shop?

A—Neither the company nor the union asks for or expects any special favors. Matters concerning SOLL workers are handled with perspective and judgment. In effect, a special set of criteria covering SOLL workers is being developed as we go. Promotions are waived when the SOLL recognizes that he cannot handle additional job complexity or responsibility. Shift preference, vacations, layoffs, etc., which are decided by seniority, are handled this way for all employees; no preferences are asked or granted by either group.

Q—What unusual problems are encountered with the SOLL employee?

A—The problems are about the same as one might expect with a 12- to 14-year-old child. For example:

1. A slightly higher incidence of "Band-Aid" accidents, but less major accidents (one seldom finds SOLL's who are accident prone or disability seekers);

2. The need for more and specifically directed personal counseling;

3. The tendency to imitate other employees rather than to represent themselves. Occasionally one might choose a bad example to imitate, but as a rule he is more likely to imitate the good and more productive employee. Steering him away from imitating the less effective employee is usually easy.

Q—What percentage of a group can be slow learners?

A—Our experience so far is inadequate to answer this with more than conjecture. We have had as high as 20 percent but believe that at least 50 percent of some groups could be slow learners without jeopardizing operational efficiency. However, one of the prime psychological points for the SOLL is working with and being a part of "normal" society; they need the example and leadership of mature, normal people to motivate them to their best efforts. It is our premise that slow learners work better when they are a part of a normal working group than when they are segregated.

Our experience has been very rewarding from every point of view, including the point that concerns the general and specific welfare of the company—our SOLL employees have been a good investment.

Project Seesaw

(*Continued from page 23*)

touch with graduates. Those who have not been placed are asked to come in to the center about once a week for counseling. The girls can brush up on their typing. Also, for 3 months after a trainee starts working, the staff keeps in touch through phone calls, and personal visits, and group meetings.

The key to community acceptance of the new project was community involvement from the beginning. Two centers had formal Community Advisory Boards of 18 to 25 people who met to discuss the project and offer advice. The members represented a cross-section of the community—ministers, teachers, businessmen, laborers. In all three areas, the staff sought advice and help from the townspeople and won their confidence and support. Everyone from the sheriff to the shoeshine man became a local public relations worker.

Persons such as the local Negro minister were instrumental in spreading the word about the project among people for whom the written word represents a society which rejects them and promises of help are only made to be broken.

In numbers, Project SEESAW made only a small dent among the rural disadvantaged of four Louisiana parishes. But, it was a *success.* An integrated, federally funded training project was a success.

In several Louisiana towns, the most common comment these days is "When does the next project start?" Momentum has picked up. People are aroused. A man who owns half of one town has generously offered one of his vacant buildings for the next project, and the exterminating man wants to know why everybody "quit" after only 6 months. Friends and relatives are marveling over Joe's and Mabel's success after they enrolled in "that program." An impression has been made. The ball is rolling.

Employer Services Beyond Recruitment

CHARLES H. LOCKHART

With rapid population growth and almost incredible economic expansion in Arizona during the past two decades, employers consider accurate, detailed, manpower information an essential ingredient in planning for the future.

Requests for this type of information have almost invariably preceded large expansions by present employers or location of new employers in the State. This, in most instances, required extensive work by local offices and the research staff of the State office.

Formerly, techniques used to provide this information have included surveys of starting wages paid by employers and, in several instances, complete economic base studies of areas in the State.

Techniques now used to describe available manpower range from household surveys of the job market area to mailing availability questionnaires to households within a commuting area. On occasion, newspaper advertisements have also been used to solicit replies and information about the latent skills available. The Research Unit is now developing plans for placing applicant information on computers in a perpetual inventory, which will greatly reduce the volume of work in meeting specific requests.

Good communications between the Employment Service, employers, and public and private institutions serving employers are an essential part of this program. The Arizona State Employment Service has maintained close working relations with Government agencies, and private groups interested in economic development, including chambers of commerce, railroads, utility companies, and banks throughout the State. The confidence and assistance of these groups make it possible for us to provide an increasingly meaningful service to the State's employers within the limitations of existing staffing.

Another method of satisfying employer needs with limited staff has been through employer institutes. We conduct these institutes on a semiannual basis in Phoenix and, when necessary, in other parts of the State.

Emphasis is placed on employers' use of job analysis and especially its importance in job evaluation.

Considerable time is spent in roundtable discussions of common manpower problems, how such problems were resolved, and unusual ways in which job analysis techniques have been applied. The institutes have started an exchange of ideas, services, and information between employers and the Employment Service. Additional interest is created by the use of guest experts in the field of wage and salary administration, management consulting, or personnel psychology.

Now there are new efforts to resolve personnel problems associated with an older, agrarian Arizona.

Our Farm Section worked to instill in the farmworker a sense of responsibility to his employer and also to induce farmers to make efforts to retain workers referred to them. Recently, lettuce growers arranged to keep employed the highly skilled lettuce workers they had recruited and trained and to move them from area to area and State to State.

The problem of high turnover in other groups still remained. One method used in the Yuma cantaloupe harvest was the development of a 13-page booklet for workers covering matters in which misunderstanding had arisen in the past—job conditions, housing, health, wages, and hours. In addition, the local office farm representative met every inter- and intrastate busload of workers at the farmer's camp and, working with the company foreman, he informed workers of all conditions of employment and gave them a chance to ask questions. Workers were informed by the foreman what

(*Continued on page 38*)

Charles H. Lockhart is Public Relations Officer, Arizona State Employment Service.

MDTA Helps Meet Tool and Die Worker Shortage

WILLIAM E. HARDMAN

For hundreds of tool and die shops across the United States, the Manpower Development and Training Act of 1962 came none too soon. Simply put, the industry's labor force was in the same kind of shape as the U.S. balance of payments—there was more outgo (through retirements, deaths, and miscellaneous other causes) than income (through training, formal and informal).

Since the Department of Labor estimated that approximately 25,000 jobs will open up annually in the metalworking industry, it took no great vision to see the kind of job opportunity that exists here.

A tool and die journeyman represents the epitome of industrial skills, and will be paid accordingly. The average high school graduate who works between the ages of 25 and 65 will earn approximately $280,000; the average college graduate, approximately $360,000; and the average diemaker, approximately $350,000. Subtract the expense of a college education, and the diemaker becomes the breadwinning equivalent of the college graduate.

Now, nearly 3 years later, we have begun to arrest that decline with many of the 3,000 beginning apprentices becoming journeymen whose talents (and paychecks) give them a seat at the head table of in-

William E. Hardman is Executive Vice President, National Tool, Die & Precision Machining Association.

dustrial skills. Here's how we're doing it.

As a national association with local chapters, we already possess the administrative framework around which a national training program could be constructed. Knowing where the jobs are, enjoying the confidence of its members, having an insider's ability to "get through" when the going becomes abrasive, the trade association can effectively fulfill a connecting role between the Government and the employers in a particular industry.

The program we administer is actually a great number of homogeneous local programs (there were over 70 at last count).

Recognizing the essentiality of pretraining—classroom instruction preceding actual on-the-job experience—we decided to hold an 8-week training course in the local vocational school, 7 hours a day, 5 days a week. Trainees would be exposed to machine tool orientation as well as related work. Dissatisfied with the available texts, we began the development, writing, and publication of our own.

We determined that only skilled journeymen would do the teaching; we kept approximately to a 15:1 apprentice-instructor ratio. When the pretraining was concluded, the instructor went on the road, giving at least 1 hour of related training a week at each shop where the trainees had been placed on jobs. Homework was generously apportioned, as is so often not the case in industrial skills training.

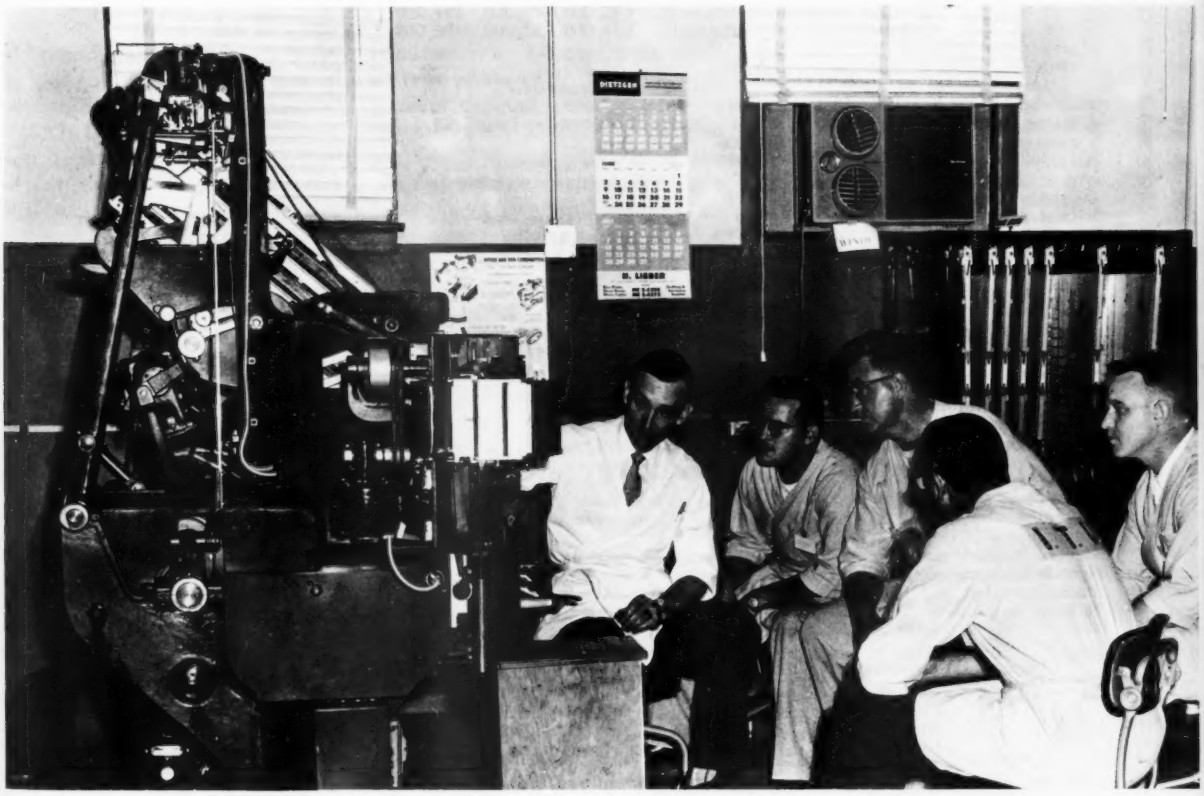
Apprentices participating in the experiment took the 4-year Connecticut graduate apprentice examination after 1 year of on-the-job training, scoring an average of 12 points higher than those who had taken the conventional 4-year course. Shop owners, said the experimental group was 6 to 12 months ahead of their other trainees.

So much for the positive side—now for the problems:

First, money. While the owner-manager of a tool and die company would readily acknowledge the necessity for training, the financial obligations of apprentice training are too great to bear.

The materials situation is equally distressing. Textbooks are around, but their authoritativeness is questionable in the face of great technological advances.

Overlaying both of these problems was the question of organization. The skills shortage was national, not local. Could a program be evolved that would address itself to the national need without running afoul of local prerogatives?



How would the industry—sharing the small businessman's traditional suspicion of Government—react to the notion of Government as a partner?

Happily, in nose-to-nose confrontation, none of these potential stumbling blocks was as serious a deterrent as we supposed they would be.

For applicants sent to us directly or referred from State Employment Service offices the GENERAL APTITUDE TEST BATTERY (GATB) serves as an extremely-helpful first screening.

Occasional discrepancies between GATB testing and our own might be resolved by experimental test projects, engaging test and measurement experts in the development of stronger test batteries for the more highly-skilled trades. Our test and job-performance data could be made available for a project of this nature.

Passing the GATB, passing our tests, being acceptable to his future employers: These are the basic criteria we apply to the selection of entering apprentices. The qualifications are high, but not so high that minority group members cannot meet them. The percentage of minority group members in tool and die apprenticeship programs varies from city to city, ranging from 8 to 15 percent.

This brings us back once again to the public purse. It was one thing for the Congress, in amending MDTA, to permit Labor to contract for programs lasting more than 1 year; that is desirability talking. However, except for one special program we are now conducting, Labor has not approved the MDTA training program exceeding 52 weeks. That is, we suspect, the budget talking.

The special program is not an apprenticeship training program: It is a machine operator training program, lasting 78 weeks, not 52.

MDTA Institutional Training Highlights

	Cum. total	*FY 1967*	*FY 1966*	*FY 1965*	*FY 1964*	*FY 1963*
Approved projects (Sept. 1962–Dec. 31, 1966)	9,799	1,217	2,827	2,440	1,851	1,464
Total trainees approved	556,771	69,985	158,821	166,243	109,286	54,436
Enrolled in training (estimated)	482,000	77,300	164,700	139,000	68,000	33,000
Completed training (estimated)	274,000	52,000	96,000	75,000	42,000	9,000

Employment status of graduates (March 1963–Apr. 30, 1966)	
Followup reports received	117,546
Obtained employment since training	104,606
No employment since training	12,940
Occupations with largest enrollments (Sept. 1962–Sept. 30, 1966)	
Stenographer	26,435
Hospital and institutional attendant	22,434
Machine operator, general	21,417
Typist and clerk-typist	20,578
Miscellaneous mechanic and repairman	19,931
Welders	19,609
Automobile mechanic	17,748
Nurse, licensed practical	15,302
Automobile-body repairman	9,593
Clerk, general office	8,322
State agency selection and referral activities (June 1962–November 1966) [1]	
Screening interviews	3,014,171
Counseling interviews	936,301
General aptitude tests	385,080
Specific aptitude tests	419,943
Proficiency tests	54,740
Referred to training	590,055

Trainee characteristics	*Cum. percent*	*Cal. 1965 percent*	*Cal. 1966 percent*
Male	59.5	56.6	58.8
Head of family or household	53.6	55.7	51.4
Nonwhite	33.2	38.2	35.7
Eligible for allowance	70.5	82.2	72.7
Public assistance recipient	10.4	11.8	11.2
Duration of unemployment—total	*100.0*	*100.0*	*100.0*
Under 5 weeks	32.2	34.4	33.1
5–14 weeks	23.5	24.2	23.0
15–26 weeks	13.4	14.0	12.9
27 and over	30.9	27.4	41.0
Years of employment—total	*100.0*	*100.0*	*100.0*
Less than 3 years	38.0	35.5	43.4
3–9 years	37.3	38.7	34.5
10 or more years	24.7	25.8	22.1
Age—total	*100.0*	*100.0*	*100.0*
Under 19 years	15.1	12.2	19.0
19–21 years	23.2	21.6	23.9
22–34 years	35.1	37.3	32.7
35–44 years	16.2	16.9	14.5
45 years and over	10.4	12.0	9.8
Education—total	*100.0*	*100.0*	*100.0*
Less than 8th grade	6.6	6.4	7.1
8th grade	9.4	9.8	9.9
9th to 11th grade	34.2	36.0	35.4
12th grade	43.4	41.4	42.0
Over 12th grade	6.4	6.4	5.6

[1] Includes ES activities for OJT.

States with over 15,000 trainees in approved projects

California	56,454	Michigan	24,358
New York	49,823	Massachusetts	19,900
Illinois	37,429	New Jersey	17,628
Pennsylvania	29,288	Texas	17,351
Ohio	28,168	Connecticut	15,680

Area Manpower Needs

To help fulfill its responsibilities under the Manpower Development and Training Act, the Department of Labor conducts a comprehensive research program to develop information for dealing with such problems as manpower requirements, development, and utilization. The following studies relating to area manpower needs were sponsored by the Department's Office of Manpower Policy, Evaluation, and Research of the Manpower Administration, through its contract and grant research program.

Local Manpower Data

A recently completed study by Bruno Stein, Assistant Director of the Institute of Labor Relations, and Cho-Kin Leung, Research Assistant, New York University, reveals that current techniques for collecting local manpower data by State Employment Service agencies and other groups are not geared to the new tasks assigned to them in recent years.

The study involved an examination of some 300 local, State, and regional manpower research efforts to ascertain the adequacy of data and the state of knowledge concerning manpower research at local and regional levels. For the analysis, area research publications were grouped into eight categories. Those especially related to employment security type information were: Surveys: Manpower Requirements; Surveys: Potential Labor Force; Impact of Technological and Structural Change; and Long-Term Unemployed.

In studies dealing with manpower requirements, mainly area skill surveys, estimates of future changes in labor demand were found to be not as reliable as those relating to supply. The major problem in projecting labor demand pertained to methodology and technique. In some cases, methodology was vague and sampling bias evident; in others, there was failure to take into account drawbacks of the establishment series, such as the tendency to omit the self-employed and adjust for multiple job holding.

Limitations, especially in regard to methodology, were found in surveys relating to the potential labor force. For example, in some reports the validity of findings was questionable due to poor responses, particularly to mail questionnaires; in other surveys, failure to make questions more specific resulted in meaningless answers.

Studies on the impact of technological and structural change showed a lack of detailed industry and occupational data, and in general failed to provide insight into effects of change.

Most of the studies of the long-term unemployed were of claimants who drew payments under the Temporary Extended Unemployment Compensation Act of 1961. The researchers felt the surveys were inadequate from the standpoint of national manpower policy developments.

The Stein-Leung report expressed a need for regular job vacancy studies, complemented by mid-decade censuses of population to estimate manpower supply. It was pointed out that such data would be a valuable supplement to existing statistics, and would help solve many of the local data collection problems.

The authors recommended that responsibility for all manpower and related studies be centralized in each area, and that each "center" be used as "the major link in a transmission belt."

Copies of the full report are available at all regional offices of the Bureau of Employment Security.

Studies on Projecting Local Labor Needs

The University of Colorado has completed a study of a possible new approach to making occupational projections. It was designed to help local Employment Service offices meet their responsibilities under the Vocational Education Act of 1963 in providing vocational educators with job market information.

The project, "Methodology for Projection of Occupational Trends in the Denver Standard Metropolitan Area," [1] critically evaluates sources and limitations of data available for making forecasts. The authors include a theoretically "ideal" methodology and data collection technique with each assessment of currently used methods.

Included in the report is an experimental model of the Denver area economy. Featured in the model are tables showing the nature of production relationships between local area industries and the distribution of employment in each major industry by major occupation. The tables provide illustrative forecasts of employment demand in 20 main occupations in 10 principal industries for 1970 and 1975.

The authors contend that techniques based on analysis of such tables are most effective in employment analysis and projection but that, at present, data for many local areas are inadequate for such techniques. The report also contains an extensive bibliography of regional manpower research.

Another study on local employment demand forecasting, "Projective Models of Employment by Industry and by Occupation for Small Areas: A Case Study," [2] was recently completed at Temple University. The study presents a detailed development of a single employment projection technique—the Harms industry base method. This is coupled with an account of the procedures and data required to apply the authors' method of forecasting employment by industry and occupation for a specific job market. The problems involved in long-range industry-occupational employment forecasting with such a model are presented, as are the staff resource and data quality needs.

Copies of the Denver and Temple studies are available at all of the BES Regional Offices, and Federal Depository Libraries. In addition, a detailed review of the Denver study has been prepared by the Research Office of the Office of Manpower Policy, Evaluation, and Research, and will be provided to State Employment Service offices.

[1] *Leslie Fishman, William E. Roberts, Charles M. Franks, and William W. McCormick of the Bureau of Economic Research, Institute of Behavioral Science, University of Colorado, Boulder, Colo. (MDTA Research Contract No. MDTA 42–64—July 26, 1966.)*

[2] *Louis T. Harms, Rosella James, and Robert C. Springer, Bureau of Economic and Business Research, School of Business Administration, Temple University, Philadelphia, Pennsylvania. (MDTA Research Contract No. MDTA 41–64.)*

In the Manpower Field

Strategies for the Displaced Worker

George P. Shultz and Arnold R. Weber, New York—Harper and Row

This book provides a vivid and detailed account of the work of the Armour and Company Automation Fund Committee in its efforts to cope with labor displacement problems generated by technological change in the meatpacking industry.

The task before the committee was far from a simple one. By the time this group was established, the process of rationalization was well underway. Thus, it did not have the advantage of participating in early planning stages. Moreover, the situation at Armour was especially difficult. Workers were generally poorly educated, older individuals, long removed from the job market. Their skills lacked transferability, and a substantial portion were Negroes and Indians who bore the added burden of racial and ethnic "disability." To further complicate matters, precipitous reductions in employment were required. Stopgap measures such as attrition or early retirement could provide no solution for a situation generated by the closing of six major plants.

The story of the committee's work in dealing with such serious problems is an important one and in and of itself justifies the publication of this book. But in addition, this account presents the Armour case

as a particular experience that has wider significance. Thus, the authors delineate the various courses of action available to management and union officials facing problems of this type, and they construct a useful summary of the entire gamut of solutions developed in the course of union-management negotiations. These include the use of normal and induced attrition, advance notice, the sharing of available job opportunities, economic guarantees and indemnification and the facilitation of movement to jobs outside the firm. The Armour experience revealed that remedial measures devised by the parties cannot be restricted to only one of these programs. Rather, to be effective the approach must be varied in character, providing a wide range of solutions that can be used to meet a great diversity of individual and group needs.

The reader of a book such as this one is very predictably concerned with answers to the following questions: (1) To what extent was the program of the Automation Fund Committee successful? (2) What lessons can be learned from its experiences?

The answer to the first question is a somewhat qualified, "Yes." Certainly, the future prospects of many workers were made brighter as a result of the committee's programs. Critics who argue that the committee performed largely a "buffer group" and public relations function have much to refute in the way of concrete accomplishments. Success also can be measured by the fact that this experiment served to develop new knowledge and understanding in the field. It permitted the testing against reality of certain long held beliefs regarding the administration of programs for the adjustment of displaced workers. For instance, management traditionally has feared that advance notification of plant shutdown will lead to union obstructionism and lowered worker productivity. But in the Armour case, notification in advance proved to be a consistently beneficial practice. In fact, the authors recommend that whenever feasible, 6 months' to 1 year's notice be given in order to permit as long a time as possible for remedial adjustment procedures.

Reluctance To Move His Home

Another strongly held belief concerns the traditional reluctance of workers to move to new communities. In the Armour case, total plant shutdowns necessitated interplant transfer programs and fortunately, the committee was able to develop successful procedures to counter the problem of reluctance to change residence. Briefly, the solution lay in the provision of additional options for the worker. Thus, if a new position at an Armour plant in another community proved unsatisfactory, the worker was not left "holding the bag." For a period of 6 months, he could elect to return home without sacrificing his severance pay.

In answer to the second question, the book contains many pointers and some sober warnings for both industrial managers and Government officials who undertake future efforts to solve the problems of the displaced worker.

In the first place, the Armour experience revealed that programs designed to meet the problems of these workers cannot operate as self-contained entities. The condition of the economy can drastically affect the outcome of even the most excellent program. Worker retraining is a necessary element in these efforts, but even the best retraining course will bear little fruit in a depressed job market.

Secondly, it was clear that planners often focus on the wrong problems. They may worry that the financial cushion provided by severance pay will be dissipated through extravagant spending. This situation rarely occurred, but the cushion effect often was lost in unanticipated ways. Thus, company credit unions instituted immediate claims on such money. In some States unemployment compensation was denied until the applicant had technically exhausted his severance pay. These conflicting practices serve to underline the need to coordinate both private and public programs that affect the fate of these workers.

Most importantly, the study revealed that it is extremely difficult for private groups such as the Armour Automation Fund Committee to conduct broadly effective placement campaigns. Private efforts require the backing of continuing programs conducted by public bodies. In the final analysis, the study concludes that public employment agencies must play the key role. It was found that when the public agencies' activities were organized on a special project basis, they were especially effective. Private groups, such as the Automation Fund Committee, then could complement these programs, concentrating on cases that involve unique problems. But the services of the Federal and State organizations were needed to establish a long term relationship with the displaced worker. Entry into a retraining program most often proved to be the beginning rather than the end of a series of difficult adjustments.

At the same time there was a clearly evident need for communication between public and private groups working in this area. Those heading Government retraining programs often were not cognizant of the basic problems of special groups such as the ex-Armour employees. Criteria employed by these officials all too frequently disqualified the meat packing company's former workers.

Unfortunately, unrealistic entrance criteria were far from being the only roadblock to progress. Poor community educational facilities, delays in programs due to bureaucratic red tape and the lack of adequate support for those entering retraining courses also hampered the committee's efforts.

In conclusion, this book has a basic message for those interested in and active in the field of manpower planning and development, i.e., a forest is nothing more than a collection of individual trees. Massive programs designed to solve problems, generally conceived, are worth much less than the flexible effort tailored to deal with the individual and his specific problems. It appears that a diligent regard for the unique qualities of each case is essential for even modest success in dealing with the problems of labor displacement.

Reviewed by Margaret K. Chandler, Professor of Business, Graduate School of Business, Columbia University.

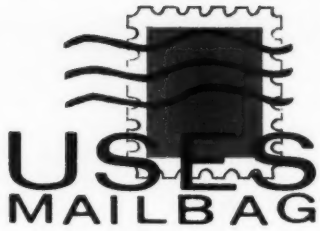
Beyond Recruitment

(*Continued from page 31*)

they might expect from the farmer. The foreman also gave work instructions at that time so they might be translated into Spanish for Spanish-American workers. The farm representative again contacted workers in the field.

Employers receiving special services indicate that better working relations with both agricultural and nonagricultural employers result, and, in many cases, placement activities increased accordingly.

The current success of the programs discussed confirms our belief that employers are very cooperative in learning to help themselves through using the services of the Arizona State Employment Service. However, we also recognize that much remains to be done in such areas as helping employers better utilize existing manpower through job restructing and modification of hiring specifications, encouraging restructuring of staff assignments for more efficient utilization of worker skills, and conducting recruitment drives to attract persons not in the work force.



We look forward to receiving your publication and read each issue with considerable interest. There are frequently articles that we would like to use in training programs for our rehabilitation staff. Would it be in order for us to reproduce such items for use in this way? Of course credit would be given to your publication.

IAN CAMPBELL

National Coordinator
Civilian Rehabilitation
Department of Manpower and Immigration
Ottawa, Canada

★ ★ ★

As a recent Employment Service employee . . . I do not know the history of your publication nor do I particularly care to know about it.

What I do know is that the December 1966 issue is the best issue I have read in my 2½ years in the ES.

Previously I had considered this magazine an uninformed organ of the Bureau, operating in a tower in the sky where everything is rosy.

This issue was different—and great.

For the first time the ES had faults, and in counseling yet.

Keep up the great work.

H. S.

★ ★ ★

I have just reviewed the December issue of the EMPLOYMENT SERVICE REVIEW and was quite impressed with the quality of the articles on counseling. I would like to know if copies would be available to the Texas Education Agency for use of the Vocational Rehabilitation Counselors.

We have been most happy with the cooperation of the staff of the Texas Employment Commission in carrying on the vocational rehabilitation program for the disabled in Texas. We have the kind of cooperative relationship that I wish existed between all State agencies.

C. G. FAIRCHILD

Assistant Commissioner of Education for Vocational Rehabilitation and Special Education, Texas Education Agency

★ ★ ★

The November 1966 issue of EMPLOYMENT SERVICE REVIEW contains a wealth of information on shortages and needs for workers in the health care fields. May I have your permission to make some short direct quotations and use ideas from the journal that will not be direct quotations from the articles? The journal will be given full credit. This material will be used in the second edition of "Nurses Can Give and Teach Rehabilitation" by Allgire and Denney, Springer Publishing Company, New York, N.Y., 1960. The first edition has many thousands of copies, and it has been printed in two foreign languages. It is a simplified version of rehabilitation geared for use by those with less than top level training and experience. Your consideration and approval of this will be greatly appreciated because it will give the book up-to-date authority of needs and how they can be met.

MILDRED J. ALLGIRE

Physical Therapist, Division of Services for Crippled Children, Indiana Department of Public Welfare

Immigration—
Labor Department's Expanded Role

LeRoy F. Schantz
and David R. Johnston

The Immigration Act of 1965 greatly expanded the Department of Labor's role in the immigration process with respect to permanent admissions of workers to this country.

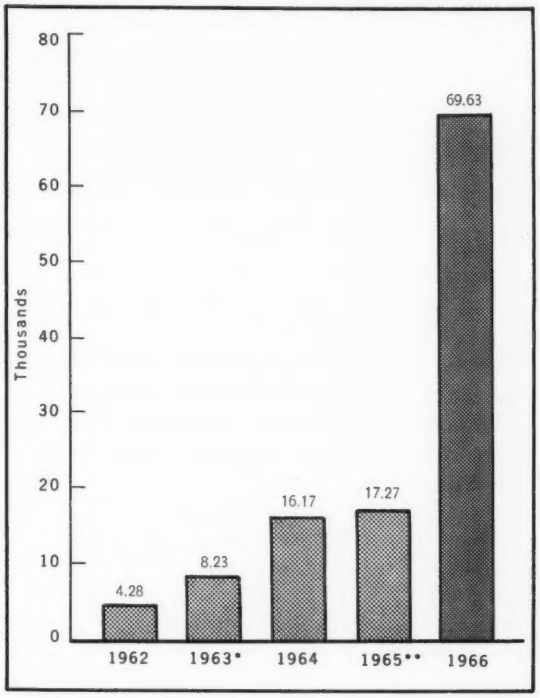
Prior to the 1965 act, aliens seeking to perform skilled or unskilled labor generally were free to enter the United States permanently, unless the Labor Department acted to prevent their entry. Under the new act, aliens seeking to enter this country for employment may not be admitted until a labor certification is issued—a decided shift in emphasis and a broadening of the labor certification activity of the Department.

The expanded certification responsibilities of the Department of Labor in the act were designed to (1) contribute to the welfare of the Nation by admitting immigrant workers with urgently needed skills, knowledges, and talent; and (2) safeguard American labor by giving American workers first chance at available jobs and protecting their wages and working conditions.

Availability of American workers for jobs is determined on the basis of occupational information and general and local employment data available in the Department of Labor, public Employment Service offices, professional societies, trade associations, labor unions, and from employer recruitment efforts.

In determining possible adverse effect on American workers of the admission of foreign workers, the primary consideration is the employer's wage offer. How-

PERMANENT NONFARM CASE DETERMINATIONS
(APPROVALS AND DISAPPROVALS) 1962-1966



*ES–320 Program—Mexican Immigrants—212 (a)(14) invoked by agreement July 1, 1963.

**ES–320 Program terminated on December 1, 1965. New Immigration Act effective December 1, 1965.

Source: Activity Reports, Branch of Immigration Analysis and Branch of Immigration Procedures and Standards, U.S. Employment Service.

LeRoy F. Schantz is Chief, Immigration Services, and David R. Johnston is an Employment Service Advisor, U.S. Employment Service.

President Lyndon B. Johnson signs the Immigration Act of 1965 at the foot of the Statue of Liberty on October 3, 1965.

ever, hours, fringe benefits, and other employment conditions are also considered.

Professional occupations and fields of specialty in short supply nationally are certified in advance of any applications for entry. These "Schedule A" occupations include physicians, engineers, mathematicians, chemists, physicists, etc.

Low skill occupations and occupational groups with minimum training requirements for which there is an abundant supply of U.S. workers are on "Schedule B" noncertification list. Illustrations of occupations on this list for which the Labor Department could not now issue certification are bus boys, hotel clerks, cook's helpers, farm laborers, grocery checkers, kitchen workers, and janitors.

"Schedule C" lists a variety of semiprofessional and skilled occupations generally in short supply in certain areas of the country. Examples are chefs, specialty cooks, purchasing agents, office machine servicemen, keypunch operators, psychiatric aides, and stenographers. The USES determines the availability of American workers in the occupation and *geographic area in which employment* is sought before certification.

All schedules are published in the FEDERAL REGISTER and their occupational content is continually analyzed in terms of changing job market, economic, and labor supply and demand conditions to keep them responsive to fluctuations in employment levels.

There is also provision for individual review by the Department of Labor of cases of aliens who are exceptionally qualified in occupations in the arts or sciences which are not included on Schedule A.

Unless an alien is qualified for an occupation on Schedule A or C, or is one exceptionally qualified—by education, training, and experience—in the arts or sciences, he must locate a U.S. employer willing to hire him. The employer informs the local ES office of the requirements and specifications of the job offer. The local office then investigates the availability of U.S. workers and prevailing wages in the area. The investigation may include some or all of the following: File search of applicants registered in the local office; advertising; contacts with unions and professional organizations; review of reports of employer layoff plans; completion dates of State and Federal training programs; and contacts with other established recruiting sources.

A Break With Traditional Recruitment

SAMUEL SCORDATO

In Pennsylvania, our Employer Relations Representatives do not visit employers to get orders: They visit employers on a continuing basis.

We do not view this as a noble or idealistic approach. Rather, we consider it the most practical approach in today's economy when change is so rapid and so far-reaching that even our basic, tradition-rooted recruitment techniques have to be updated.

Reference Library

In Erie, for example, a new reference library, bought and paid for by Employment Service personnel is the most complete reference library on personnel administration in the area. Principal community users, in addition to employers, include trade associations, college professors and students, teachers, counselors, counselees, personnel workers, labor organizations, attorneys, government agencies, and civic and social organizations—particularly those concerned with vocational guidance.

This has made the Erie local office the focal point for employment and personnel administration.

Service to Servicemen

More recently, the Pennsylvania agency has begun to explore an area of service which will be of considerable benefit to both employers and servicemen returning to the job market.

During hospitalization, servicemen who are interested in obtaining employment will be interviewed, complete application information will be developed, physical capacities will be fully appraised, and pertinent and related information will be developed. For individuals who hope to work in another State, the information will be forwarded to the appropriate office.

This is more than a service to applicants who need it. It is an excellent recruiting device which, in this period of skill shortages, may locate the worker some employer needs.

The Pennsylvania Farm Labor Section has been innovative in its approach to service.

Through preseason and postseason Crew Leader Institutes, Farm Placement Representatives arrange for demonstrations of proper hand cultivation and related activities.

Advertising Campaign

Last October, an extensive advertising campaign was initiated by a State committee in consumer magazines and key metropolitan newspapers extoling the economic virtues of Pennsylvania. Each advertisement included a coupon for the reader to clip and state his interest in Pennsylvania employment.

To date, thousands of coupons have been received from applicants in all States, Canada, and other countries. Respondents range from doctors, engineers, teachers, lawyers, and other professions, to semiskilled and unskilled workers.

Local offices contact employers and urge them to communicate with the applicants and, where necessary, local offices communicate directly with the applicants.

Samuel Scordato is in Employer Relations, Pennsylvania State Employment Service.

Unemployment Moderate in Majority of Major Labor Areas

Moderate unemployment prevailed in January and February in 82 of the 150 major labor areas regularly surveyed by the U.S. Employment Service and affiliated State agencies. Major production and employment centers with low unemployment totaled 59, after 7 areas shifted to higher unemployment ratings in January because of seasonal cutbacks in trade, construction, and outdoor activities.

Cleveland was the largest of the seven areas most recently moved to a moderate unemployment rating, partly because of recent slowdowns in auto production. Its primary steel and other auto-related industries experienced layoffs and, at the same time, area construction and other seasonal industries reported midwinter job losses.

Peoria, Ill., Battle Creek, Mich., Jackson, Miss., Albany-Schenectady-Troy, and Syracuse, N.Y., and Winston-Salem, N.C., are the other six areas moving out of the low unemployment category, in which 66 areas were listed in December. Seasonal job losses in food processing in Battle Creek and in tobacco processing in Winston-Salem contributed to the increase in unemployment, whereas nonseasonal cutbacks in durables manufacturing—partly auto-related—were important in Albany-Schenectady-Troy and Syracuse.

Nine major labor areas were in substantial unemployment categories in February, compared with 19 the year earlier. Kenosha, Wis., moved from moderate to substantial unemployment in January, when a complete shutdown of the area's dominant automobile plant caused an extremely sharp—though temporary—upturn in its unemployment rate. Although the majority of the laid-off workers were recalled, area unemployment was expected to remain substantial over the next several months.

February classifications also listed 514 smaller and very small areas in categories of substantial unemployment.

The large number of areas classified as having low or moderate unemployment and widespread occupational shortages tends to obscure imbalances in the job market. "Pockets of poverty" exist in the inner-city sections of tight job market areas, and many thousands of applicants in all parts of the country lack qualifications to fill available jobs. In some cities, the unemployment rate in slum areas is two, three, and four times the rate for the entire metropolitan areas.

The new U.S. Employment Service Human Resources Development Program is an attempt to bridge the gap between employer hiring requirements and the characteristics and qualifications of available applicants in slum sections of cities. The program was introduced on a pilot basis in five major cities in 1966, and plans are under way to extend it to many others.

The program has a dual focus: (1) Reaching out for and registering the unemployed and underemployed in order to identify their needs and capabilities; and (2) launching a major program for developing job opportunities for these people.

The Urban Employment Survey recently completed for 11 slum areas was a start on widening the impact of this program. Details on findings of this survey are included in the 1967 MANPOWER REPORT OF THE PRESIDENT, just released.

Manpower Needs in Transportation Equipment in Early 1967

RUSSELL E. BINION

More workers are being sought by manufacturers of transportation equipment through the nationwide U.S. Employment Service interarea recruitment network than by employers in any other industry. At the start of 1967, one out of every four openings listed in the out-of-area manpower search by the State Employment Services was in the production of aircraft, automobiles, and shipbuilding and repair.

Over 150,000 were added to transportation equipment industry payrolls from late 1965 to early 1967, during which time locally hard-to-fill openings in this industry rose by 45 percent to 12,100. The bulk of these openings (65 percent) in January 1967, were in the aircraft segment, followed by shipbuilding with 15 percent and automobile manufacturing with 6 percent.

Defense industries—especially aircraft—led the Nation's job growth over the past year. Defense needs for aircraft and demand of commercial airlines for new planes point to a continued rise in the need for aircraft workers. Largest advances appear to be slated for the Los Angeles-Long Beach area, followed by sizable gains in aircraft employment in Hartford, Fort Worth, Dallas, San Diego, and St. Louis.

Openings in interarea recruitment in the aircraft industry in January 1967 were more than 40 percent above the November 1965 level. Major expansion in locally unmet manpower needs for aircraft manufacture throughout most of 1966 was in the Los Angeles-Long Beach and Seattle areas. Sharpest increases in the out-of-area search for qualified aircraft workers were for production workers, but needs for engineering and technical staff expanded also.

Most recent data available, however, indicated an easing of aircraft worker shortages in Seattle, stemming in part from anticipated layoffs. From November 1966, to the start of 1967, aircraft openings in Seattle declined from over 6,000 to less than 3,000. Job orders disappeared for 1,000 workers to train as aircraft assemblers, installers, and

Job openings in the manufacture of transportation equipment on selected [1] State inventories of job openings in interarea recruitment, November 1965 and 1966, and January 1967

States	January 1967	November 1966	November 1965
Totals	12, 101	15, 543	8, 365
Alabama	3	5	76
Arizona	42	5	18
California	2, 852	2, 744	1, 149
Connecticut	1, 033	1, 029	2, 022
Florida	149	182	292
Georgia	79	357	59
Illinois	112	280	36
Indiana	102	109	85
Kansas	90	162	229
Louisiana	44	44	60
Maryland	146	146	70
Massachusetts	1, 233	1, 043	284
Michigan	292	1, 290	797
Mississippi	349	96	30
Missouri	415	427	374
New Hampshire	16	18	0
New Jersey	2	40	18
New York	36	0	31
Ohio	429	417	618
Oklahoma	12	14	8
Pennsylvania	239	326	148
South Carolina	55	55	0
Texas	827	3	0
Utah	51	0	1
Virginia	474	413	14
Washington	2, 965	6, 322	1, 898
Wisconsin	25	10	27

[1] Data for the following States are not listed separately: Alaska, Arkansas, Colorado, District of Columbia, Hawaii, Idaho, Iowa, Kentucky, Maine, Minnesota, Montana, Nebraska, Nevada, New Mexico, North Carolina, North Dakota, Oregon, Rhode Island, South Dakota, Tennessee, Vermont, West Virginia, and Wyoming. In these States there was a total of 29 openings in this industry in January 1967, 6 in November 1966, and 21 in November 1965.

Russell E. Binion is a Labor Economist, U.S. Employment Service.

inspectors. Other orders also vanishing over the 2-month span were for aeronautical draftsmen, engineering analysts, mathematical technicians, programers, machinists, and sheetmetal workers.

Nationwide, the most substantial numbers of openings for aircraft production workers at the start of 1967 were for machinists, toolmakers, production machine operators, modelmakers, patternmakers, assemblers, aircraft mechanics and repairmen, sheetmetal workers, and assembly and installation inspectors. Most sought technical personnel were aeronautical engineers, draftsmen, and programers.

Over the period November 1965 to January 1967, locally hard-to-fill openings increased threefold in Federal facilities engaged in the manufacture and repair of transportation equipment, while in comparison, openings increased only slightly in private shipyards. At the same time, openings in the manufacture of automobiles decreased.

Production jobs monopolized expanding locally unmet manpower requirements in Federal aerospace and naval facilities. The largest orders in interarea recruitment were in Federal shipyards in Portsmouth, Va., Bremerton, Wash., and San Francisco-Oakland and Vallejo, Calif. The bulk of the need in these areas was for machinists (machine shop and outside), shipfitters, welders, pipefitters, electronic mechanics, and electricians. In the professional and technical occupations, nearly all demand in the Federal facilities was for electrical and mechanical engineers.

The upturn in interarea recruitment to fill manpower needs in private shipyards reflected a sharp rise in Quincy, Mass., although listings dipped in New London, Conn., and Jacksonville, Fla. Largest numbers of openings at the start of the year were for machinists, quality control inspectors, welders, pipefitters, electricians, and shipfitters.

The bulk of the openings in interarea recruitment for automobile workers in Detroit near the close of 1966 is no longer available, reflecting the sharp cutbacks in automobile production. Late in 1966, employers were seeking literate applicants or those with at least an eighth grade education to fill large numbers of openings for automobile assemblers, but the start of the new year found the same employers recruiting fewer assemblers and more computer-programers.

Employment Situation Good in January

The strong employment improvement of late 1966 continued in January. Total employment of persons 16 years of age and over (including self-employed, household domestic, and unpaid family workers) reached 72.2 million. About 1 million more women, 600,000 more men, and 200,000 more teenagers were employed this January than last.

Among the employed in nonagricultural industries were about 1.9 million persons who were on part time because of slack work and other economic reasons.

Nonfarm payroll employment rose 2.9 million above January 1966, to 64.3 million. While factory jobs expanded by 900,000 to 19.2 million between January 1966, and January 1967, the majority of the new nonfarm jobs created were in the service producing industries—mainly trade, miscellaneous services, and State and local government. Gains in these industries were consistent with the long-run growth trend.

Persons who were unemployed in January 1967 totaled 3.2 million, of whom 1.3 million were men, 1.2 million women, and 670,000 young persons 16 to 19 years of age. Most adults and half the teenagers sought full-time jobs.

The overall unemployment rate was 3.7 percent. Jobless rates of 2.2 percent for men and 11 percent for 16- to 19-year-olds were below January 1966, but the 4.3-percent rate for women was higher.

A fifth of the jobless—650,000—were nonwhites, and their 6.6-percent unemployment rate remained twice that for whites.

The 3.3-percent rate of insured unemployment was lowest for January since 1948.

* * *

The system for measuring employment and unemployment was changed with the January 1967, household survey, which has been enlarged to 52,500 households in 449 sample areas. Historical series are being revised to yield comparable information on persons 16 years and over, the new lower age limit.

Under the new definition of unemployment, inactive jobseekers who would have been looking for work except for the belief that no work was available are no longer counted in the labor force, if they took no specific steps to find work in the past 4 weeks. Also, persons absent from their jobs during the entire survey week because of vacation, illness, strikes, bad weather, etc., but who were looking for other jobs are now classified as employed. Probing questions now attempt to determine actual hours of work, rather than the scheduled hours which tended to be reported in the past. Also, because estimates have been too high, a question has been added to exclude as self-employed those proprietors who are employees of incorporated businesses.

Nearly 2 Million New Jobs Needed in 1967

With rising demand pushing employment sharply higher and unemployment lower during 1966, additional workers were encouraged to enter the job market. This resulted in a labor force increase about 500,000 greater than projections based on population growth and long-term trends in participation rates.

In 1967, the labor force is expected to grow by 1.4 million. Whereas women and teenagers accounted for all of the 1966 civilian labor force growth, the entire 1967 expansion is expected to take place among adults, with men showing a slightly larger increase than women. The big population group born after World War II will reach their early twenties in 1967 and the 20 to 24 age group will therefore account for just over half of the 1.4 million expected in the total workforce.

With a labor force increase of this size and continued declines in farm employment, the economy will need to add over 1.7 million nonfarm jobs in 1967 to reduce unemployment further. Such an increase in jobs would be less than that in 1965 or 1966, but would be larger than any year-to-year increase in the 1956–64 period.

Local Office Activities

Youth and Older Workers Share 1966 Placements Gains

VINCENT F. GEGAN

In the year ending December 31, 1966, the 2,000 local offices of the public Employment Service made 6.5 million placements in nonfarm jobs, a 20,000 increase from the preceding year. A decline in placements among the prime employable worker group of age 22 to 44 was more than offset by substantial gains among youth and older workers. Increasing emphasis on serving youth, including the President's summer "Youth Opportunity Campaign," and additional resources in selected cities for serving older workers contributed to the placement gains for these two groups.

Some 29 States shared in the over-the-year placement gain, with the largest increases in California, Michigan, Missouri, Pennsylavnia, and Washington.

Reflecting the continuation of the long period of upswing in the Nation's economy and employment, 1966 was marked by an increasingly tight job market. Unemployment was below 4.0 percent during most of the year, with the annual rate averaging 3.9 percent, compared with 4.6 percent the year before. New applications filed by jobseekers were 400,000 below a year earlier. About three-fourths of this decline was accounted for by a drop in applicants age 22 to 44, the prime employable age group.

On the demand side, job openings filed in local offices totaled 9.1 million in 1966, 5 percent more than in 1965 and the highest annual

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Nonfarm placements in the United States [1] and in 56 largest metropolitan areas by occupation, January–June 1966 (old DOT), and July–December 1966 (revised DOT)

Occupation	January–June 1966 (old DOT)					
	Placements				Percent distribution	
	United States		56 areas			
	Total	Percent change from year ago	Total	Percent change from year ago	Total United States	56 areas
Total [2]	3,181,800	+3.7	1,592,300	+4.0	100.0	100.0
Occupation:						
Professional and managerial	138,100	+8.6	104,600	+10.6	4.3	6.6
Clerical and sales	462,600	+3.7	247,500	+2.5	14.5	15.5
Service	960,500	−4.1	521,600	−4.6	30.2	32.8
Skilled	147,700	−5.2	69,500	−6.4	4.6	4.4
Semiskilled	482,600	+9.3	197,200	+2.1	15.2	12.4
Unskilled and other	990,300	+10.5	451,900	+18.4	31.1	28.4
	July–December 1966 (revised DOT)					
Total [2]	3,311,300	INA	1,631,200	INA	100.0	100.0
Occupation:						
Professional, technical, and managerial	137,100	INA	100,100	INA	4.1	6.1
Clerical and sales	541,300	INA	297,300	INA	16.3	18.2
Clerical	364,300	INA	206,400	INA	11.0	12.7
Sales	176,900	INA	91,000	INA	5.3	5.6
Service and other	1,010,500	INA	551,000	INA	30.5	33.8
Domestic	518,600	INA	295,700	INA	15.7	18.1
Service excluding domestic	463,000	INA	247,200	INA	14.0	15.2
Industrial	1,622,400	INA	682,700	INA	49.0	41.9
Processing	164,800	INA	45,400	INA	5.0	2.8
Machine trade	154,000	INA	69,000	INA	4.7	4.2
Bench work	273,400	INA	115,000	INA	8.3	7.0
Structural work	306,500	INA	114,400	INA	9.3	7.0
Miscellaneous	723,800	INA	338,900	INA	21.9	20.8

[1] Includes Puerto Rico, Guam, and the Virgin Islands.
[2] Items may not add to total due to rounding.
INA—Information not available.

Source: U.S. Employment Service, based on data from affiliated State Employment Services.

volume since first complete records in 1947. Unfilled job openings averaged about 421,000 per month during 1966, 37.8 percent higher than the previous year's level. During the last few months of 1966, both openings received and unfilled reflected a tapering off in the pace of increase over the preceding year's levels. This was accompanied by a decline in placements during the latter months of the year compared with 1965.

At year's end, however, the quarterly survey of unfilled openings by occupation and duration still showed thousands of jobs, particularly those requiring professional or technical training, remaining unfilled for 30 days or longer. Lack of qualified applicants was the chief reason for not being able to fill these jobs. Many of the applicants were not qualified because of inexperience, lack of sufficient training or education, obsolete skills, or need for refresher training.

Various steps have been taken to meet the growing need for qualified applicants. For example, during 1966 more than 216,600 workers were referred to MDTA job training, 57,200 to the Job Corps, and 156,300 were enrolled in Neighborhood Youth Corps programs. Also, many thousands were referred to educational institutions or rehabilitation agencies to increase their employability.

In mid-1966, a completely revised occupational structure was introduced. Consequently, no satisfactory comparison can be made between 1965 and 1966 placements by occupation, except for white-collar

Nonfarm placements in the United States[1] and in 56 largest metropolitan areas by industry, calendar year 1966

Industry	Placements				Percent distribution	
	United States		56 areas			
	Total	Percent change from year ago	Total	Percent change from year ago	Total United States	56 areas
Total[2]	6,493,100	+0.3	3,223,400	+1.0	100.0	100.0
Industry:						
Construction	403,800	−8.1	131,700	−6.7	6.2	4.1
Manufacturing	1,678,000	+10.1	745,800	+8.3	25.8	23.1
Durable goods	880,600	+14.9	429,300	+14.9	13.6	13.3
Nondurable goods	797,300	+5.2	316,400	+0.6	12.3	9.8
Transportation and public utilities	277,900	+15.3	119,000	+17.3	4.3	3.7
Trade	1,454,800	(3)	733,200	+1.9	22.4	22.7
Services	2,236,800	−5.3	1,292,300	−4.3	34.4	40.1
Nonhousehold	1,078,900	−0.6	644,100	+0.7	16.6	20.0
Household	1,157,900	−9.3	648,200	−8.9	17.8	20.1
Government	289,000	+2.0	128,400	+11.5	4.5	4.0
Other	152,700	−10.0	72,500	−5.5	2.4	2.2

[1] Includes Puerto Rico, Guam, and the Virgin Islands.
[2] Items may not add to total due to rounding.
[3] Less than 0.05 percent.

Source: U.S. Employment Service, based on data from affiliated State Employment Services.

workers where a rough comparability exists between the old and new structure. In the professional, technical, and managerial group, the 275,300 placements made in 1966 were up 3.0 percent from the year before, while in the clerical-sales group, the 1,003,900 placements were a 4.7-percent gain.

Among industry divisions, substantial placement gains were registered over 1965 in transportation and public utilities—up 15.3 percent to 277,900, and in manufacturing—up 10.1 percent to 1,678,000. The 14.9-percent over-the-year rise in the durable goods sector of manufacturing was in the metals, machinery, and electrical equipment industries and, in the early months of the year, also in the automobile manufacturing industry. However, placements in the auto industry began slipping before midyear. Placements in trade were virtually unchanged from a year earlier and in government they were 2.0 percent higher. Construction and household services, however, registered large declines from 1965. With the rise in interest rates, housing construction slumped during 1966, adversely affecting the level of construction placements. The decline in household placements began several years ago when the supply of applicants for this type of work began to dwindle.

Placements Also Rise In the 56 Major SMSA's

In the 56 largest Standard Metropolitan Statistical Areas (SMSA's), nonfarm placements in 1966, at 3.2 million, rose about 29,000 over last year and accounted for more than the national increase. The 204,700 professional placements reflected about the same increase as nationally, but the 544,800 placements in the clerical-sales group represented a greater-than-national gain of 6.0 percent.

Placements by industry division in the 56 SMSA's followed about the same pattern as nationally, except for government where there was an 11.5-percent increase compared with the national gain of 2.0 percent.

Fewer Job Applicants Among All Age Groups

New job applications filed during 1966 in local offices totaled 10.5 million, 3.4 percent fewer than a year earlier. An estimated four out of every five workers unemployed during 1966 registered with a local Employment Service office. Two of every five applicants in 1966 were youths, a somewhat higher ratio of youth than among the unemployed—35 percent—and in the civilian labor force as a whole—12.5 percent. Unemployment among youth showed a substantial reduction, dropping from a 12.6-percent rate in 1965 to 10.9 percent in 1966—but still far in excess of the overall 3.9-percent rate for all age groups in 1966.

Although new applications from all age groups declined from a year

ago, the group 22 to 44 years experienced the largest drop—more than 300,000, or 6.2 percent. The largest drop in unemployment—17.2 percent—also occurred in the 22 to 44 age group.

In the 56 major SMSA's, new job applications totaled more than 5 million in 1966, 7.0 percent fewer than in 1965.

Counseling and Testing

In 1966, some 2,334,800 counseling interviews were given to 1,247,000 individuals. Although total interviews rose 6.5 percent from 1965, the number of individuals counseled declined 2.0 percent. The ratio of counseling interviews to individuals counseled increased from 1.7 in 1965 to 1.9 in 1966, partly because of the growing importance of Youth Opportunity Centers, where many disadvantaged youth served require more followup counseling than most applicants.

Youth under age 22 accounted in 1966 for 751,100 individuals who were initially counseled, a 3.9-percent decrease from 1965. The intensive high school program, coupled with the relative lack of work experience among youth in general, accounted for the large proportion of youth applicants who were counseled—about 1 out of every 5—compared with 1 out of every 12 adult applicants counseled. Some 177,900, or 1 out of every 7 individuals counseled in local offices, were MDTA trainees.

Individuals given aptitude or proficiency tests in 1966 totaled 2,481,300, a 3.5-percent drop from 1965. Testing under the MDTA job training program, at 236,500, accounted for 1 out of every 10 persons tested.

About half of these activities took place in the 56 largest SMSA's where changes in total counseling interviews and the number of individuals counseled closely followed the national pattern. Aptitude and proficiency tests in the 56 areas, however, showed twice the rate of decline as nationally.

Farm Placements Continue Downward Trend

Farm placements in the Nation in 1966 totaled 4,166,700, an 11.4-percent drop from 1965, and the seventh successive year of decline. This downtrend in farm placements parallels the long-term decline in farm employment.

Included in the total for 1966 were 1,122,400 farm placements of youth—3.6 percent fewer than during 1965.

Job Corps and Neighborhood Youth Corps

Since the initiation of the Job Corps program at the beginning of 1965, the Office of Economic Opportunity requested referral by the Employment Service of 122,700 candidates to the Job Corps, including 66,900 in 1966. As of December 31, 1966, State agencies had referred to the Job Corps some 105,900 candidates, including 57,200 in 1966.

During 1966, through Employment Service activities, some 156,300 youth were enrolled in training projects under the Neighborhood Youth Corps (NYC), nearly half representing out-of-school youth.

Youth Opportunity Centers

Youth Opportunity Centers, which numbered 166 at the end of 1966, were established primarily to assist disadvantaged youth in large metropolitan centers. During the year ending December 31, 1966, 27.2 percent of applications filed by youth in all local offices, or 1,148,000, were filed in YOC's. Youth in YOC's received 43.6 percent of all initial counseling of young people. YOC's accounted for 17.5 percent (319,000) placements of all youth in nonfarm jobs. In addition, YOC's referred 31,600, or nearly half of all young people, to MDTA training; 69,200 to NYC, or 42 percent of total NYC referrals; and 19,800 to the Job Corps, about 35 percent of Job Corps referrals. Reflecting the greater problems of disadvantaged youth registering in YOC's than among youth applicants in general, the placement record of the YOC's is not as good as that of all local offices in placing youth applicants. Conversely, more preparatory work is done by YOC's to ready youth for the job market than in local offices as a whole. This is shown by the YOC's higher ratio of applicants counseled or referred to job training programs.

A Positive Policy

(*Continued from page 11*)

—Equal Employment Opportunity is based on managerial attitude. We must want to hire Negroes, not just because it is the law, but because we feel it is the right thing to do.

—We must keep in mind that the decision to hire Negroes, or to upgrade them is not based on employee's views, or the views of customers, suppliers, or competitors. The decision is ours.

—If we proceed into the program with firm conviction, our people will probably go along. We must assume their consent, rather than ask for it.

—We need to be persistent in seeking qualified Negro employees.

—In hiring, we must look ahead to the time when this man is to be upgraded. He will expect to be upgraded to the level of his ability. By the same token, if he does not work out, we have a responsibility to discharge him. To fail in this is also discrimination, although of an opposite nature.

—We must give our Negro employees something meaningful and necessary to do; we cannot just locate them conspicuously for display purposes.

—We must be willing to go the extra mile at the outset—can our new Negro employee locate housing, can he eat at the restaurants where we eat, stay at the motels we use; and so forth. We must help in these areas.

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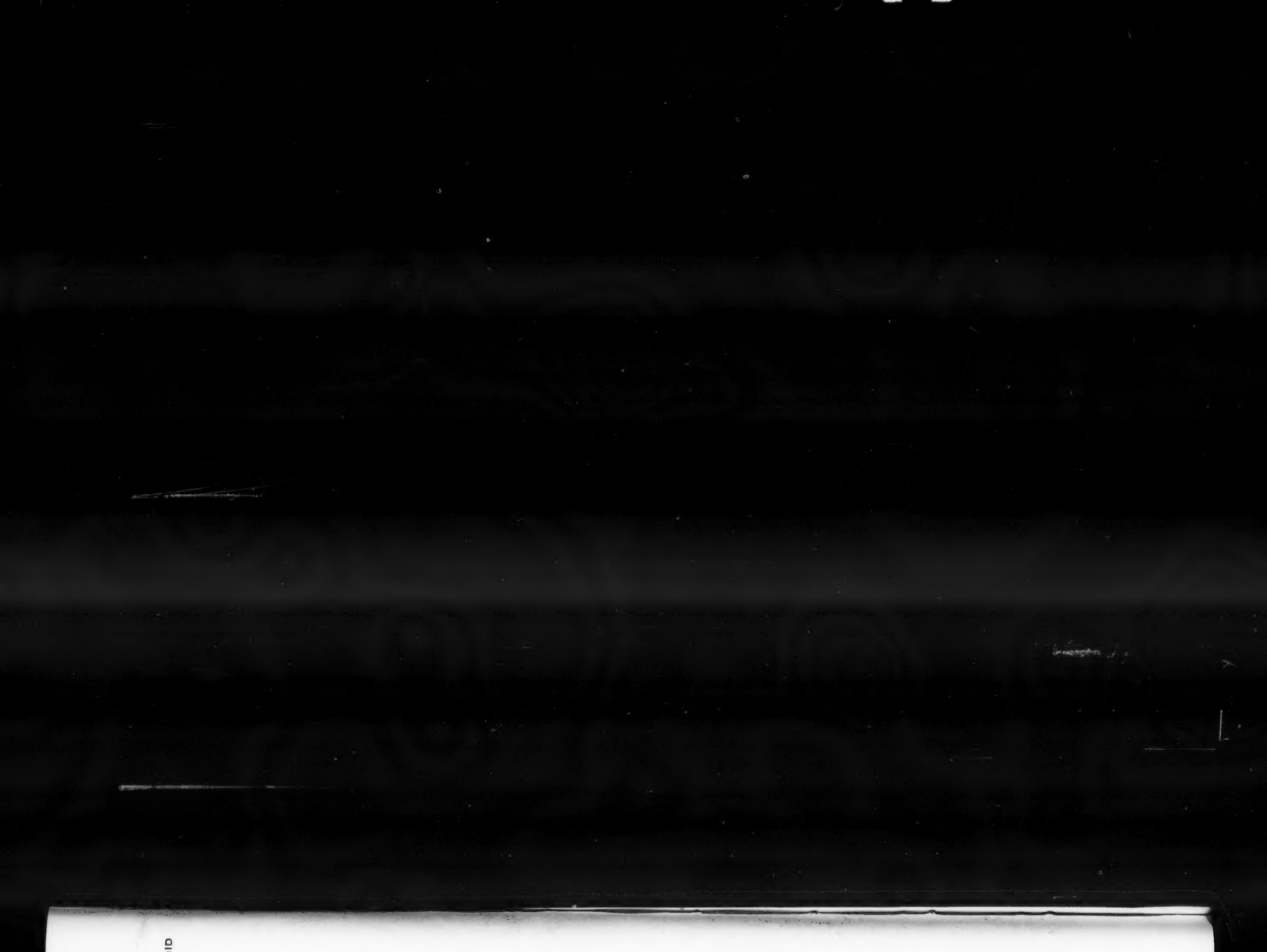
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